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Issue 399
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2. MIXING HACKS

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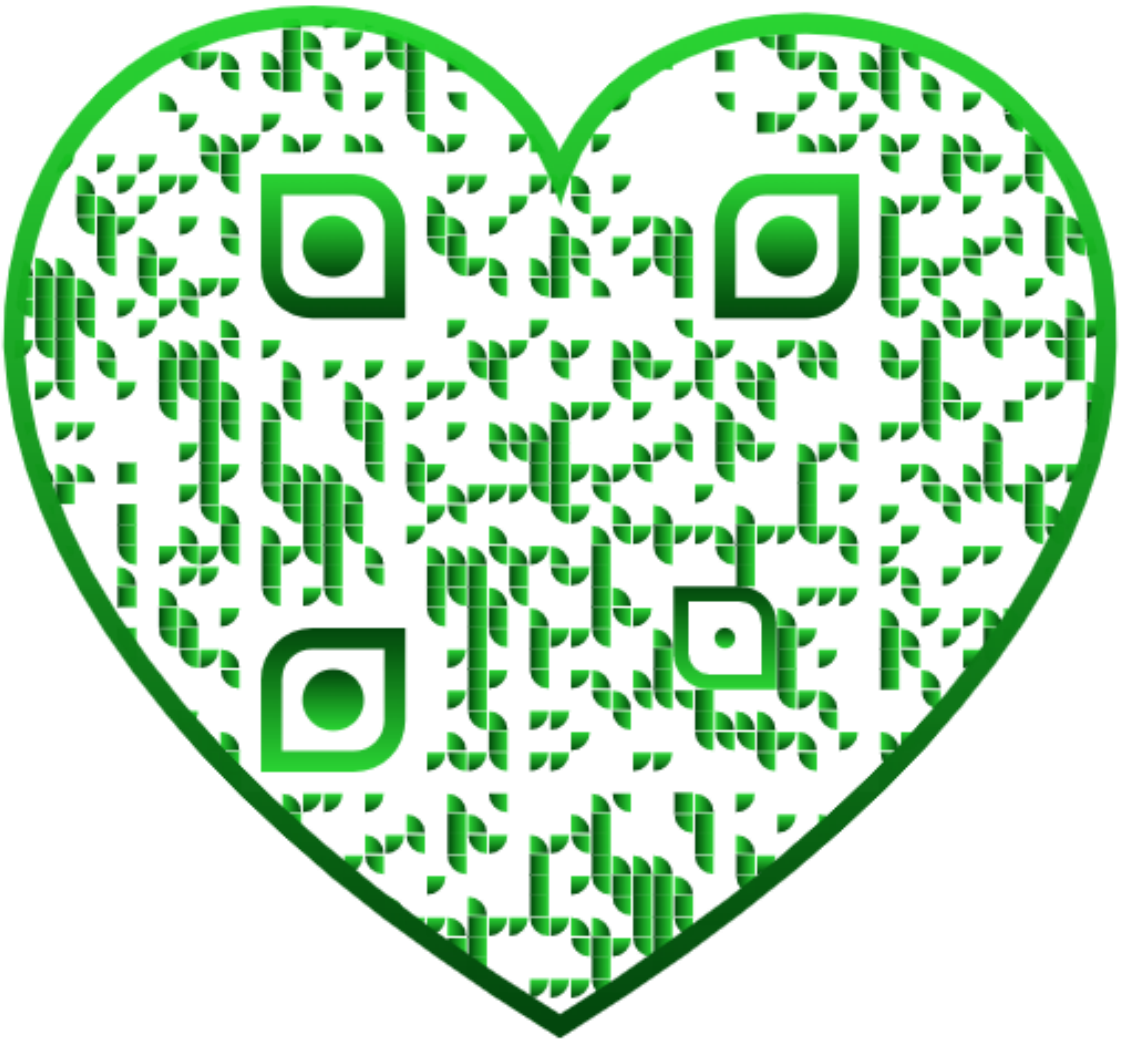
FUTURE



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Printed in the UK by: William Gibbons & Sons Ltd on behalf of Future
Distributed in the UK by: Marketforce (UK), 2nd Floor, 5 Churchill Place, Canary Wharf, London, E14 5HU **Tel:** +44 (0) 203 787 9001

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Future Music, ISSN 0967-0378, is published monthly with an extra issue in December by Future Publishing, Quay House, The Ambury, Bath, BA1 1UA, UK
The US annual subscription price is $197.60. Airfreight and mailing in the USA by agent named World Container Inc, c/o BBT, 150-15 183rd St, Jamaica, NY 11413, USA. Application to Mail at Periodicals Postage Prices is Pending at Brooklyn NY 11256.
US POSTMASTER: Send address changes to *Future Music*, World Container Inc, c/o BBT, 150-15 183rd St, Jamaica, NY 11413, USA
Subscription records are maintained at Future Publishing, c/o Air Business Subscriptions, Rockwood House, Perrymount Road, Haywards Heath, West Sussex, RH16 3DH, UK

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The final hurdle

For a whole variety of reasons, as an electronic music maker, it can be far easier to start a project than to finish it. Even the most productive producers will surely know the feeling of falling in love with a fresh idea and excitingly working away at it, only to lose all enthusiasm hours later, or get distracted by some even fresher idea, and never see that original concept through to completion.

This issue, we're here to help get you out of that loop. Whether you suffer from chronic writer's block or just need the occasional nudge over the finish line, we have creative tactics, smart production hacks and plenty of artist insight that will help turn you into a reliable track finisher.

Si Truss, Editor-In-Chief
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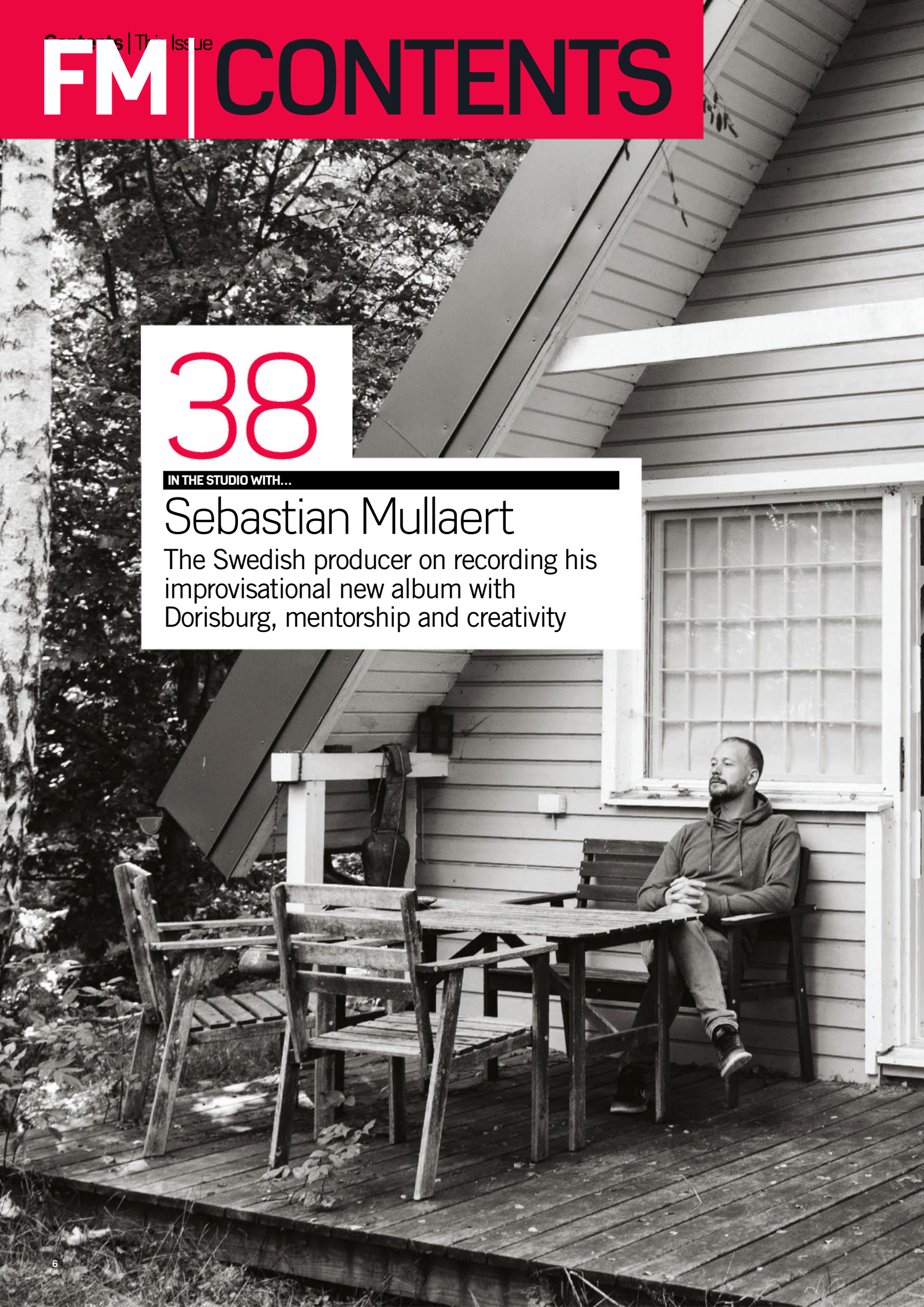
FM CONTENTS



38

IN THE STUDIO WITH...

Sebastian Mullaert

The Swedish producer on recording his improvisational new album with Dorisburg, mentorship and creativity

ISSUE HIGHLIGHTS

72
REVIEWED
Bitwig Studio 5
Are a few new envelopes enough to warrant an update? We find out...

94
Knowledge
Filters

48
In the studio with...
Ash Walker

60
In the studio with...
Nathan Micay

84
Review
FSS Timbral Sculptor

54
Masterclass
Bus processing

15
Filter
Tracktion Love

REVIEWS

72 Bitwig Studio 5

76 Akai MPC One+

80 Audio-Technica ATS99
82 Arturia KeyLab Essential Mk3

84 FSS Timbral Sculptor

86 Arturia MicroFreak v5 update
88 ADDAC 107 Acid Source
90 Audio-Technica ATH-M50xBT2
92 **Sounds and Samples**
96 **Gear Guide**

ARTISTS

TALKING SHOP
18 PEARL & THE OYSTERS
IN THE STUDIO WITH...
38 SEBASTIAN MULLAERT
PRODUCE LIKE...
44 JAMES HYPE
IN THE STUDIO WITH...
48 ASH WALKER
IN THE STUDIO WITH...
60 NATHAN MICAY
INTERVIEW
66 JAMES ELLIS FORD

REGULARS

12 **Filter:** The latest news
20 **Classic Album:** Landscape, *From The Tea-Rooms of Mars, To The Hell-Holes of Uranus*
24 **SAVE MONEY,** subscribe today!
26 **Releases:** What's caught our ear this month?
54 **Masterclass:** Bus processing

64 Pioneers... Daft Punk

94 **Knowledge:** Filters
95 **Effects Tips:** Part 4

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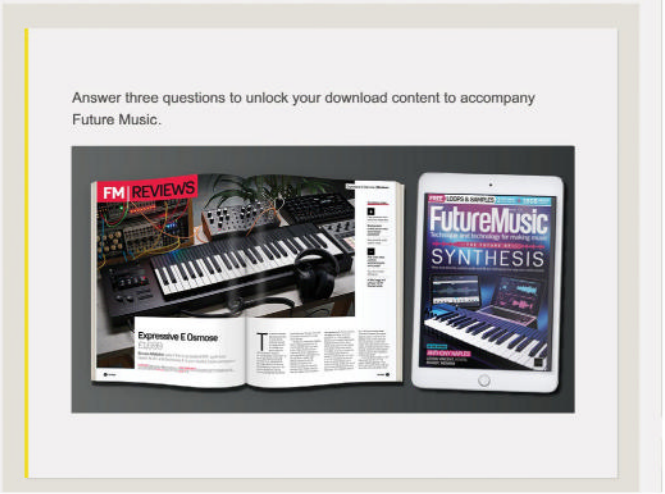

44

PRODUCE LIKE...

James Hype

INCLUDES VIDEO

We sat down with the in-demand DJ and producer at Brighton Music Conference to break down his latest bootleg

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- Atmospheric Beds (369 samples)
- Noise, Crackle & Hiss (512 samples)
- Sounds of the City (371 samples)

BASS BUNDLE
- Amped-Up Bass (234 samples)
- Sub-Frequency Grooves (256 samples)

ESSENTIAL DRUMS
- 808 and 909 (39 samples)
- Ultimate Cymbals (503 samples)
- Ultimate Kick Bundle (505 samples)
- Ultimate Snares & Claps (676 samples)
- Vintage Drum Machine Hits (548 samples)

FOUND FAVOURITES
- Mechanical Sounds (390 samples)
- Out There FX (500 samples)
- Studio Noise (234 samples)
- The Edge Of Noise (512 samples)
- The Sound Of Water (375 samples)

FUTURE DRUMS
- Beyond Breakbeats (186 samples)
- Digital Percussion (502 samples)
- Electro FX (321 samples)
- Granular Drums (499 samples)

FX & TRANSITIONS PT.1
- Filter Fun (496 samples)
- Gates 'N' Sidechains (287 samples)
- Total Transitions (260 samples)

FX & TRANSITIONS PT.2
- Destroyed synths (519 samples)
- Sci-Fi FX (501 samples)

HIP-HOP, FUNK & SOUL
- Cosmic Soul (386 samples)
- Funk Keys (279 samples)
- Hip-Hop Drum Machines (387 samples)
- Minimal Hip-Hop (540 samples)

HOUSE & TECHNO
- Chicago House (537 samples)
- House & Techno Stabs (213 samples)
- Jacking House (518 samples)
- Warehouse Techno (575 samples)

PERCUSSION
- Modular Percussion (510 samples)
- Shakers, Tambs & Toplines (503 samples)
- Sticks, Knocks & Rims (502 samples)

MORE BEATS
- '80s Pop Drums (197 samples)
- Dub Percussion 2 (537 samples)
- Jazz Drums (499 samples)
- Total Snares (501 samples)

TRANCE & RAVE
- Classic Breakbeats (371 samples)
- Rave Synths (524 samples)
- Trance Tools (537 samples)

NEW PACKS

'70S SYNTHS
- '70s Synths Pt 1 (102 samples)
- '70s Synths Pt 2 (192 samples)

'80S SYNTHS
- '80s Synths Pt 1 (265 samples)
- '80s Synths Pt 2 (279 samples)

'90S SYNTHS
- '90s Synths Pt 1 (414 samples)
- '90s Synths Pt 2 (411 samples)

'00S SYNTHS
- '00s Synths Pt 1 (308 samples)
- '00s Synths Pt 2 (188 samples)

DRUM HITS
- Analogue Drums (311 samples)
- Rims 'n' Things (549 samples)
- Resonator Percussion (502 samples)
- Hats, Cymbals & Gongs (280 samples)

LO-FI TOOLS
- Clips, Skips and Glitches (497 samples)
- Tape World (499 samples)
- Lo-fi Acoustic (277 samples)

ETHEREAL FX
- Digital Nature (255 samples)
- Clouds & Air (496 samples)

TECHNIQUE **& FEATURES**

28

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Korg revamps the Wavestate for v2 and drops a fancy SE model

Plus, the Opsix also gets an SE overhaul

Launched in early 2020, Korg's Wavestate is a 21st-century reimagining of the Wavestation, a digital wave-sequencing synth produced by the company in the '90s. More than simply a modern reissue though, Wavestate uses what Korg calls 'Wave Sequencing 2.0', which vastly expands on the power of the original synth. We were really impressed with Wavestate when it arrived, and it ushered in a range of similarly interesting digital synths from Korg that also includes the FM-inspired Opsix and wavetable Modwave.

Now Korg has revealed an updated Wavestate MKII and announced an all-new 61-key version of the synth, the Wavestate SE, also available in silver as the Wavestate SE Platinum. Like the original Wavestate, both synths are based around Korg's Wave Sequencing 2.0 synthesis technology, but have been updated with redesigned hardware, workflow tweaks and new features.

Boasting a (moderately) refreshed visual aesthetic, the MKII expands the Wavestate's polyphony from 64 stereo voices to 96 and features a variety of newly-designed Wave Sequences and Programs. There's also an expanded 4GB (up from 2GB) of internal storage for loading your own sounds into Wavestate using Korg's Sample Builder application.

Korg has also replaced the Wavestate's Sound Librarian companion software, which allows you to design sounds for the Wavestate on your computer. This is now the Wavestate Editor/Librarian, a redesigned tool that grants users the ability to edit Performances, Programs, Scales, Wave Sequences and Wave Sequence Lanes and edit internal effects parameters from your Mac or PC.

WAVESTATE USHERED IN A RANGE OF SIMILARLY INTERESTING DIGITAL SYNTHS FROM KORG

Originally announced in 2021 but only officially unveiled this week, the Wavestate SE is a premium version of the Wavestate: the synth has a 61-key keyboard with aftertouch, and has been outfitted with an appealingly solid all-metal design (the Wavestate and Wavestate MKII are mostly plastic) and metal-plated knobs.

The SE can handle 120-note polyphony, and many of the onboard patches and presets have been redesigned to take advantage of the performance capabilities that the aftertouch offers. Korg have also unveiled the Wavestate SE Platinum, a silver version of the SE.

Arriving hot on the heels of the Wavestate, Korg has also introduced a larger version of another of its Opsix synths. Much like its Wavestate counterpart, the new Opsix SE model takes the original FM-based engine, enhances it with increased polyphony and voicing, and subsequently sticks the whole lot in a 61-note keyboard with aftertouch. The result could be said to now more closely resembles a classic FM synthesiser of the past, that being the Yamaha DX7.

Opsix SE uses Korg's natural-touch keyboard – the same one that you'll find in the company's flagship workstations – and, thanks to those extra octaves (the standard Opsix has just three) it enables proper two-handed playing. The Opsix SE has a sleek new look, too, which includes an aluminium control panel and illuminating LEDs. As well as the standard black version, there's also a limited edition Platinum model, on which Korg opted for a silver colour scheme.

Sounds have been designed using the Operator Mixer, which comprises six faders and knobs. It's this simple design that makes the Opsix SE so easy to program, and each part also lights up to indicate whether it's a carrier (red) or a modulator (blue). Other control features include six data entry knobs and an OLED display.

Although it's based on FM synthesis, Opsix SE goes further by offering additional waveforms, filters, shaping, effects, LFOs and modulation features. There are six operator modes and 40 preset algorithms, plus the ability to create your own.

You'll also find three EGs, three LFOs and 12 virtual patches, all of which can be managed in the modulation matrix. The effects on offer, meanwhile, have been conveniently divided into three blocks of 30.

Opsix SE also has a built-in 16-step sequencer. Every program comes with its own sequence, or you can create your own using up to six notes per step. Each note's velocity, gate time and playback timing can be adjusted, too, and further expression features mean you can create the likes of strums and drum rolls. The motion sequencer, meanwhile, enables you to record changes of up to six parameters.

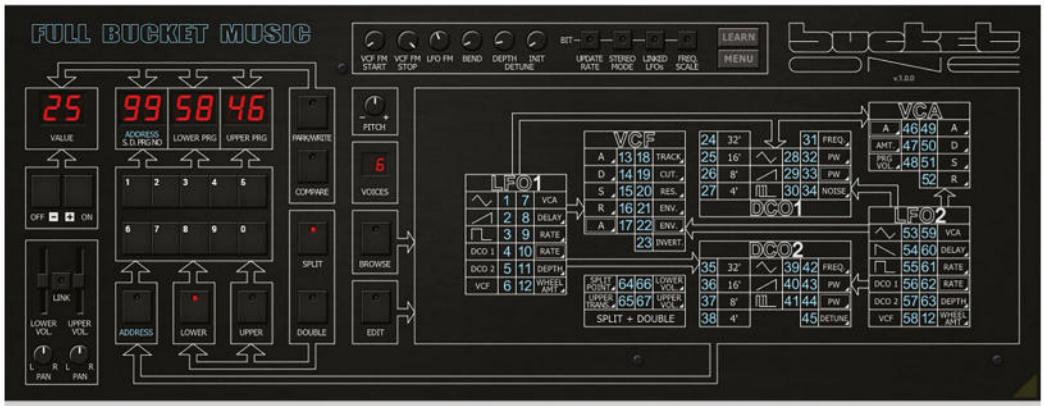
Korg's Wavestate SE will retail for £1899, while its fancy silver cousin will set you back £2099. The Wavestate MKII is priced at £699.

The Opsix SE is expected to cost around £1,899, while the Opsix SE Platinum should land for around £2,099. Both models ship with a bespoke hard case. **FM**

Full Bucket Music's latest free plugin brings back the Crumar Bit One

Released back in the mid-'80s, the Crumar Bit One was an Italian 6-voice analogue synth that was viewed at the time as a cut-price rival to the Roland Juno-106. It's fair to say that it isn't as well-remembered as that instrument, but Full Bucket Music is now attempting to bring the Bit One back into the public consciousness with the Bucket One, a free plugin emulation.

This is designed to closely resemble the original hardware, which means you get two oscillators with a choice of three waveforms (triangle, sawtooth, pulse) and an additional white noise generator. There's also a self-resonating, four-pole low-pass filter and a VCA, both of which have ADSR envelopes. You'll find a pair of LFOs, too. Polyphony has been upped to 64 voices and there are now Split and Double modes. Micro-tuning is supported, there's MIDI Learn, and the interface is resizable.



Coded in native C++, Bucket One promises high performance even on lower-spec systems, and runs on PC and Mac in VST/AU/Clap formats. FM

Zynthian 5 is a standalone, open-source device with 50 synth engines

First seen back in 2016, Zynthian is a different kind of standalone music-making device in that it's completely open-source. Built around a Raspberry Pi and Open Hardware, it's upgradable, adaptable and repairable, and has now been updated to version 5.

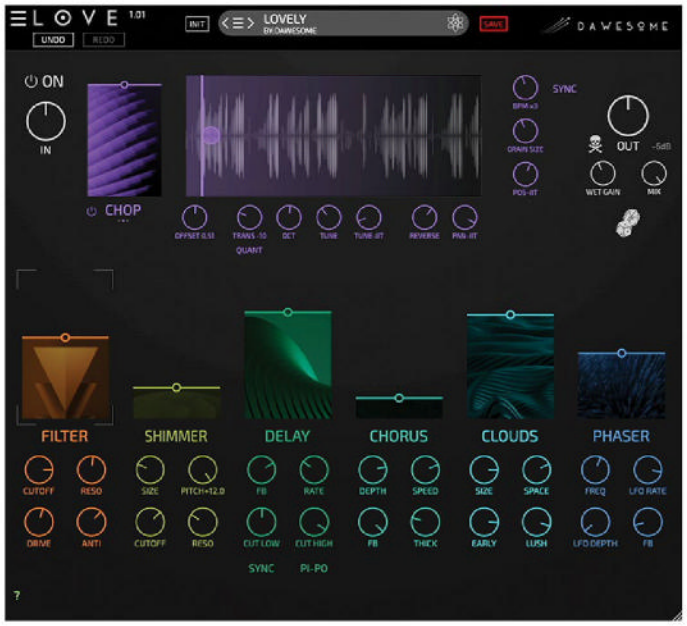
The new version of Zynthian has a redesigned enclosure that contains a 5-inch multitouch display, buttons and four controller knobs. It contains a wealth of instrument and effect engines, all based on free Linux plugins.

The engines include emulations of essential instruments and synths (piano, Rhodes, Wurly, Minimoog, DX7, Oberheim OB-X, etc) and there's also SoundFont support. In fact, a 4GB collection of SoundFonts comes pre-installed.

If you're wanting to make music directly on the device, you're able to do so via the step sequencer. You also get a live looping sampler as well as an audio/MIDI recorder/player, plus support for multitrack audio recording.

Zynthian 5 enables you to create up to 16 chains and has a built-in mixer. Connectivity options include audio, MIDI, USB and Ethernet, so you could easily use it as a keyboard expander for live work, a standalone effects processor or a synth that you can incorporate into your existing DAW-based setup.

Its DIY nature means that Zynthian 5 won't be for everyone, but that, we suspect, is part of its charm. It's supplied in kit form, so you'll have to build it yourself (it doesn't look too difficult) and costs €490 plus VAT without a Raspberry Pi and €570, plus VAT with one (version 4, 4GB). FM



Tracktion Love is an 'instant ambient' plugin

What your DAW needs now is Love, sweet Love. That's what Tracktion Software thinks, anyway, as it launches its tenderly titled new 'instant ambient' plugin. Developed by Dawesome, the core elements of Love are a shimmer effect, a granular engine and a spacey reverb. The shimmer element comprises a reverb and parallel pitchshifters for everything from subtle harmonic layering to "infinite black holes".

Back on planet Earth, you can use the granular engine to slice, dice and rearrange your audio, and then process it with timestretching, pitchshifting and granular synthesis features. There's also the Clouds reverb that can be used for additional ethereal ambience.

The interface has been kept to a single page and designed with the aim of pleasing beginners and more seasoned sound designers alike. Intelligent randomisation means you can lock certain parameters while rolling the dice with others, and there are also filter, delay, phaser and chorus sections.

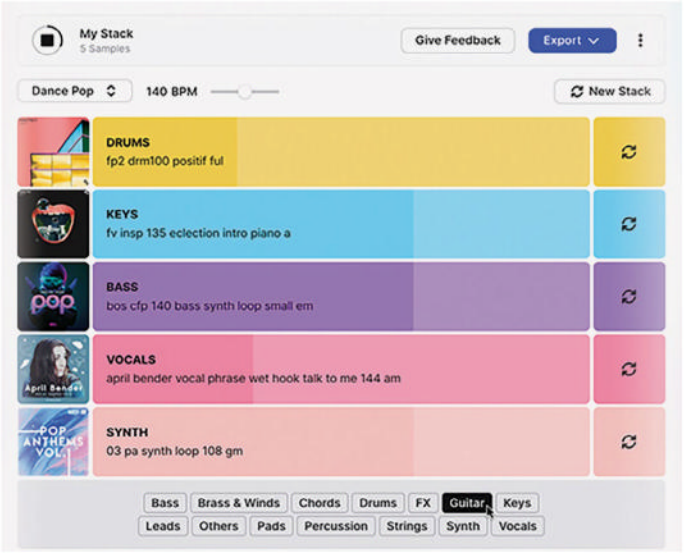
Buy for $60 or try free for 90 days. On PC/Mac in VST/AU. FM

Splice is letting you use AI to create your own 'Stacks' of samples

Originally released as part of its CoSo mobile app, Splice has now brought its AI-powered 'Stacks' functionality to its website via the 'Create' feature. Pick a genre and the AI tech will create a Stack – a group of complementary samples – for you. If you like what you hear you can tweak the Stack by adding/removing samples, muting/soloing layers and adjusting levels; if you don't, you can simply press a button and a new Stack will be generated in its place.

Once you're happy with your Stack you can save it and download the original samples or timestretched stems for use in any DAW. Alternatively, you have the option to export an Ableton Live Session file.

These export features are only available to Splice subscribers, but anyone can try Create now via the Splice website. FM



Behringer make a "premium" mixer for $129

Behringer has confirmed the availability of the Xenyx 1003B, a new 10-input analogue mixer with five mic preamps and a battery power option. Described as a "premium" mixer, this is designed for live work, streaming, podcasting and recording.

Each of the Xenyx preamps has a 48v phantom power option, and there's also a dedicated stereo line input channel. Each channel has a 60mm fader, 3-band EQ, and a post-fader FX send control for utilising external effects.

There are also per-channel pre-EQ monitor send controls that can be used to set up an independent monitoring mix, along with RCA streaming, 1/4-inch main and headphone outputs.

Available for $129 now. FM

Novation expands its FL Studio controller range

Having previously introduced a pair of compact FL Studio-specific MIDI keyboard controllers – FLkey Mini and FLkey 37 – Novation now has a couple of options for the FL-favouring DAW user who wants something on a larger scale. FLkey 49 and FLkey 61 come with four- and five-octave keyboards respectively, and also offer some additional features.

As you'd expect, both models integrate seamlessly with FL Studio – they've been created in collaboration with Image-Line, the DAW's developer – and enable you to control several of its key elements. These include the mixer and channel rack (you get eight knobs, nine faders and nine fader buttons), the famous step sequencer and many of its instruments and plugins.

Pattern Pad mode enables you to select and edit patterns directly from the pads, while Scale mode locks the keyboard to a specific key. There are also three different Creative Chord modes (Fixed, User and Scale) that enable you to trigger chords with a single finger.

Preset browsing is possible, too, and you can make your own control assignments using the Custom modes.

Both controllers ship with a 6-month trial version of FL Studio Producer Edition, while other bundled software includes XLN Audio Addictive Keys, AAS Session bundle, Spitfire Audio Expressive Strings, Klevgrand DAW Cassette and Klevgrand Røverb.

The FLkey 49 costs £230 and the FLkey 61 is priced at £280. Available for pre-order now. **FM**

Add instant analogue character in your DAW with Excite Audio Lifeline Console Lite

Download the modular mixing plugin worth $49 with our exclusive coupon

Developer Excite Audio launched back in 2022 with its debut plugin Lifeline Expanse, a multi-effect that combined elements of distortion, reverb and amp-sim. We reviewed it and called it an impressive first release that "can do a lot to make audio sound better with little work."

A second release, Lifeline Console followed hot on its heels. Much like Lifeline Expanse, Console takes analogue-style processing and places it into a modern, versatile interface that can be rearranged to suit a host of different processing duties. The focus here, however, is on the sort of mixing tools offered by vintage consoles and outboard hardware found in iconic recording studios.

Lifeline Console features five modules, focussing on Pre-amp emulation, EQ, Compression, tape-style Modulation and Wear, which can emulate mechanical noise and analogue-style artefacts. Each features a range of parameters to tailor the sound, and every module can be bypassed or rearranged, allowing users to radically alter the overall signal flow. A final master module allows users to blend between the dry signal and Clean and Vintage tonal characteristics.

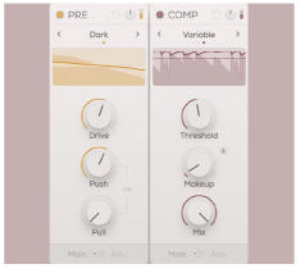
What sets Console apart is that it places these analogue-inspired processes into a clean and modern UI, which is fully resizable and provides responsive visual feedback within each module. It's also zero latency and includes a host of highly-useable presets.

Users can get a taste of what Lifeline Console is capable of with the introductory Lifeline Console Lite, which usually sells for $49, but can be downloaded absolutely free with the exclusive voucher code at the bottom of this page. Console Lite packs the same five effect modules as its bigger sibling, all the core controls and 100 presets to get you started. If you're hooked you can upgrade to the full version to add features including advanced controls, mid/side operation and additional active visual feedback.

HOW TO DOWNLOAD LIFELINE CONSOLE LITE

> Grab your free plugin at: pluginboutique.com/products/9103
> On the payment page, enter the coupon code: ez0q8710
> Offer expires 31 August 2023 (23:59 PST)

THREE EFFECT COMBINATIONS TO TRY WITH LIFELINE CONSOLE LITE

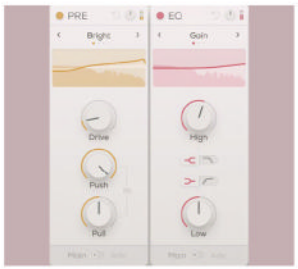


Pre-amp and Compression on drums

1 Pre-amp's Dark saturation mode is a secret sauce for bringing weight and 'glue' to a drum bus. Pair it with the Comp module's Variable setting for a tight and coherent sound.

Modulation, Wear and EQ for characterful pads

2 Capture the rich and slightly degraded sound of acts like Boards of Canada by combining slow Tape modulation, Cassette-style wear and a Vintage high-shelf EQ cut.



Pre-amp and EQ for air

3 Capture a modern hi-fi sound that's great on hi-hats or vocals by using Pre-amp's Bright setting. Add in a Clean boost using EQ to target the high frequencies.

TALKING SHOP

Pearl & The Oysters

The Stones Throw duo talk vintage synths, obscure drums and why weirder equals better

Summer's here, and we can't think of a more suitable soundtrack for poolside lounging and sun-dappled relaxation than Pearl & The Oysters' new album, *Coast 2 Coast*. This whimsical collection of 13 tracks draws on a smorgasbord of vintage gear and a colourful palette of retro influences, from '70s Brazilian pop to Haruomi Hosono's *Pacific* to the space-age sound of Stereolab, whose very own Lætitia Sadier contributed vocals to the record's eleventh track, *Read the Room*.

Pearl & The Oysters is Juliette Pearl Davis and Joachim Polack, two music-makers that sparked a kinship in a Parisian high school that's since guided them through decades, continents and albums towards their arrival in Los Angeles and a fifth full-length release, *Coast 2 Coast*.

The pair's debut for LA-based tastemakers Stones Throw, the record documents a recent westwards move from Florida, channelling reflections both personal and environmental across meticulously crafted productions laced with all manner of sonic surprises drawn from their extensive collection of musical gadgets, obscure instruments and classic analogue synths.

Their sound might be breezy, playful and tinged with kitsch, but their approach to music-making is anything but frivolous: these are two musicians and producers utterly dedicated to the craft of making timeless pop songs, pursuing the perfection of a hybrid sound that sums together a kaleidoscope of influences into a singular aesthetic that's entirely their own.

We caught up with Juliette and Joachim to find out more about the making of the new record, the vintage gear that inspires their sound, and to ask what advice they can share from a decade of making music together.

When did you begin making music, and how did you first get started?

"We started making music when we were kids. We had instrument lessons at different conservatories in Paris. Then we started playing in bands when we were teenagers, and really started recording ourselves in college, around 2009-10. We began recording the songs that would eventually become our debut self-titled album around 2014-15, a few months before we moved to the US.

"Two things that were pretty quintessential to our sound and dictated the direction of the project early on was this cheap drum machine, the Boss DR-110, which Joachim had purchased in an eBay auction lot along with other cheap guitar effects pedals. It was our first time using an electronic drum machine on our recordings, and to be perfectly transparent, it was more out of convenience than aesthetically motivated, as neither of us could play drums and we didn't have the money to go to a studio to record drums properly for every song.

"Actually, before we got deep into the analogue drum machine world, we really used to really not like them at all! [laughs] But somehow that DR-110 made its way into most of the tracks in our first album. And of course the Omnichord OM-27, which we ran through some wow and flutter and echo. The last thing that felt very crucial to our early sound was this Danelectro Longhorn bass that Joachim remembers having bought off ebay specifically because it already had flatwounds on it. It turned out to have the coolest, most rubbery sound ever, and was a big part of the sonic world of our first couple records."

Tell us about your studio/set-up?

"Things are slowly starting to change since we now have access to the Stones Throw Studio in Highland Park, but since the beginning of Pearl & the Oysters as a recording project in 2015 or so, we've been recording at home for the most part, in various and more or less ergonomic bedroom setups. And then we'd do drums in the studio, at least that's what we did for *Coast 2 Coast* and Flowerland.

"In many ways it's not ideal, but we did make it work for years and it's become a big part of the sound, for better or worse. We also feel like some things are easier to do at home – like tracking vocals, for example, which we like to keep as private a process as possible – since we can take all the time we want to get things as polished as we want to, without any concern for time and money. It's definitely more difficult to make records at home now that we're shooting for a higher fidelity sound. Ideally we'd want to build a real studio at home, but that takes the kind of time and resources that we unfortunately still lack at the moment."

What one piece of gear in your studio could you not do without, and why?

"Probably our Roland Juno-6 because of its versatile, swiss-army-knife capabilities. It ends up on so many of our recordings, and it was central in the making of *Coast 2 Coast*. Our secret weapon is the Yamaha CP25 though, which is a kind of electronic

piano from the 1970s. It has different onboard stereo effects and it has two separate knobs for detuning the left and right channel independently. It doesn't do a million things, but we can get really beautiful, shimmery textures out of it."

What's the latest addition to your studio?

"We recently got this Yamaha CS-15, which is an amazing preset-based analogue mono/duophonic synth. It's really warm and rich!"

What dream bit of gear would you love to have in your studio?

"We'd love to have nice outboard gear and fancier microphones, but as far as instruments, we're really dreaming of getting a Yamaha CP-70 electric piano."

When approaching a new track or project, where do you usually start?

"If we're at home, we usually start by recording a drum machine loop and then start building the arrangements on top of that, in which case bass would come second. If we're in the studio, we're usually trying to record the full rhythm section (drums, bass, piano/guitar) as a base for the track. It is the classic way of making pop records, and for good reason. After years of making really dry 'computer' records, we've been really getting into incorporating the sound of the room more and more."

We can hear tons of synths on the new record. What synths were you using, and what do you like about them/why did you choose to use them?

> "WE JUST FELL INTO THE VINTAGE SYNTHESIZER RABBIT HOLE IN OUR LATE TEENS AND HAVE BEEN OBSESSED WITH OLD ANALOGUE SYNTHS EVER SINCE"

"We just fell into the vintage synthesizer rabbit hole in our late teen years and have been obsessed with old analogue synths ever since. There are so many different kinds of textures these synths can get and it's been a never-ending source of sensory wonder for us, even if some of these sounds probably feel so old and passé to a lot of people. For example, we love stacking mono synths on top of each other or doing synth counterpoint *à la* Wendy Carlos.

"This is the first album where we started using pads, too, which is something that can sound really awesome with the right chord progression, like the main Roland Juno-6 sound in *Paraiso*. We also love using a single high string machine note towering over the arrangement Roy Ayers-style. Actually, a friend and synth guru of ours called that the 'sunshine note' in reference to *Everybody Loves the Sunshine*, and we still refer to it that way ourselves. We love our Roland RS-09 but we've also used the Korg Delta for these.

"And, of course, we love the noise and sound effects we can get out of our mono synths, the Moog Realistic Concertmate MG-1 and Yamaha CS-01, and the little percussion synths and musical gadgets that we've been collecting for years now. That's a huge part of our sound and general aesthetic."

What did you use to make the sounds on *Timetron*? It's a really interesting little interlude.

"That is a weird collage track that started with cutting up different sections of an Indian drum machine preset. Our guess is that this drum machine was designed for Indian classical musicians to practice to, as a sort of metronome. It's supposed to emulate tablas and has amazing definition in the low end, it's a really cool instrument with awesome preset patterns.

"Most of the other sounds layered on top of the drum machine we recorded and sequenced at the Vintage Synth Museum in Oakland – shout out to our friend Lance Hill, who now runs VSM out of Highland Park in LA. We used several things including a velocity-sensitive Moog electronic tom thingy, which we're not sure of the name of, that was triggering weird noises out of a Micromoog.

"We also used some noises from the Korg MS-10 – one of our favourites, and one of the first synths that we ever owned – and the much rarer Gleeman Pentaphonic, which is a crazy, weird synth. While we were at VSM, we also recorded some Synthi for the track Joyful Science." FM

PEARL & THE OYSTERS TOP TIPS

Double down on the weird and don't be afraid of bold production choices

1 **"We've definitely made some questionable aesthetic choices in the history of this band [laughs], but one thing that we don't regret is packing our first album full of synth bleeps, even though it did offend many of our friends at the time. A lot of people told the songs didn't need this extra kitschy production touch, but it really gave that first record a strong sonic identity, and in doing so, it laid the groundwork for an aesthetic that we're still building on and refining today."**

Avoid generic ideas

2 **"There's nothing sadder for us than hearing a song we feel like we've already heard a million times. Find the stuff that surprises you, analyse it, and don't settle for a half-baked idea."**

Find the right player for the right part

3 **"When working with other musicians, it's better to find versatile players that handle anything you throw their way, but it's often counterproductive to force a part on someone who's not vibing with it. In such a situation it's ideal to find the appropriate musician for that part, but that might not always be possible, in which case it's better to work with them towards a part that they know they can nail."**

WANT TO KNOW MORE?

Pearl & The Oysters' *Coast 2 Coast* is out now on Stones Throw.

Landscape
From The Tea-Rooms Of Mars... To The Hell-Holes Of Uranus

RCA, 1981

It's a fitting name for a band that actually changed the landscape of electronic music. Richard James Burgess and crew were pushing the boundaries of computer-based beats before it was a thing. Coining terms like EDM on the back of singles. And putting weird bleeps, avant-garde chants, and processed 4/4s in pop charts normally reserved for guitars and verse/chorus songs.

"It was also the first album made by a computer, and no one's ever refuted that," adds Burgess.

Landscape, very much a group collaboration including Chris Heaton, Andy Pask, Peter Thoms and John L. Walters, morphed out of the instrumental jazz/punk world to become a vocal electronic outfit. All gifted musicians, the turning point coming when they copped the MC-8 MicroComposer – Roland's seminal but costly microprocessor-based sequencer.

"It cost half a house," says Burgess. "But it was a total game changer. And, even though we were all excellent musicians who loved to play, we embraced the idea of this transformative device."

Burgess could see the future of music making was computer-based, and was ready to declare it.

"I did a presentation for Roland at the time saying, 'One day, all records will be made like this'. I just realised that once we made this record, that's the way everyone would be making them. The fundamentals of the way we make records today were basically laid out by the MC-8."

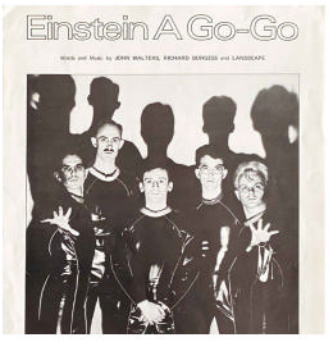
By embracing this new technology Landscape would colour the pop charts with their futuristic sound. Especially with huge hits like the UK top five smash *Einstein A Go-Go* and *Norman Bates*.

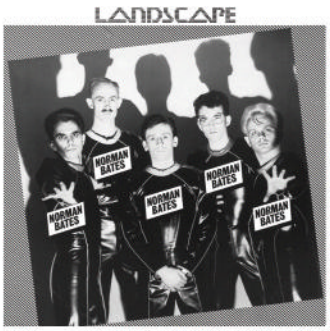
The impact of this tech-savvy approach, and the decade-defining electro pop of Landscape's efforts, would be taken even further, with Burgess bestowing it on new wave acts like Spandau Ballet, producing their first two gold records, all while honing the cutting-edge sonics for his own hive-minded collective. "It was such a fun time," says Burgess. "It definitely tested our brains, that's for sure. But they were the greatest times of my life."

You can bask in the best of Landscape's 1977-83 golden era thanks to the expansive five CD boxset *Landscape A Go-Go*, out this month on Cooking Vinyl.

Words by Roy Spencer

Track by track with **Richard James Burgess**





After disbanding around 1984 the Landscape members went on to separate careers. Burgess produced Colonel Abrams' proto-house banger *Trapped*, amongst other future hits. While Pask penned the theme to *The Bill*. Thoms sessioned on everyone from Kylie to Tina Turner. And Walters edited the print mag, *Eye*.

Four decades on the OG crew have got back together to make all their early, groundbreaking tracks available on the new boxset, *Landscape A Go-Go*. As well as remastering a vinyl version of *From The Tea-Rooms Of Mars…*

European Man

"On the back of the single we wrote, 'Electronic Dance Music… EDM; computer programmed to perfection for your listening pleasure'.

"At the time we started to write about things that were relevant to us and not about love. This was about computers, or microprocessors, as we referred to them back then. At that time they were going to basically remove the need for daily labour, which is particularly timely now, when we're in the middle of this conversation about AI in a very serious way. We were talking about a new 'European Man' and the idea that these microprocessors would effectively make it so we increased productivity to the degree that humans wouldn't need to work again. Of course, it didn't work out that way."

Shake The West Awake

"Again, we didn't want to write songs about love. At that time, it became obvious that the Japanese industrial complex was becoming extremely powerful, and it was going to take over. And that's what the song is about. I remember, prior to that time in England, if you went out on the street and you looked at all the cars, you'd see a Morris, an Austin. You'd see a Jaguar, you know? You'd see many a Mercedes, Rolls Royce. A Bentley, maybe. There were no Toyotas, no Honda. If you walk out in the street now, in the UK or in the US, you're gonna see a lot of Japanese cars. You're gonna see a lot of European cars. Not that I'm particularly a nationalist, because I'm really not. But that's what we were writing about."

Computer Person

"Pete [Thoms] wrote this one. We basically credited all of our songs to everybody in the band. But, usually somebody starts the song or somebody writes a substantial part of the song. The reason we did that was because we felt that the band had been together for so long, that even when somebody wrote a song entirely on their own, you're always sort of thinking about the other people, the other musicians and what they would do, so you were kind of writing for them.

"This one came from a jazz concept, from Duke Ellington. And the song is about that sort of AI mentality that we could see computers having in the future, with them learning what humans can do. And it's the sound of a computer learning to say 'computer person'. And the music backs that up."

Alpine Tragedy/Sisters

"These two songs are together. Chris [Heaton] started those songs, as I recall. I play drums on those. They were not programmed. But, the interesting thing is that, even though they were played, I regard those drums as electronic drums, because we recorded them at the Townhouse in the Stone Room there, and they were heavily processed.

"Peter Gabriel had just played us his third album and it had the first instance of that 'Phil Collins drum sound' and I'm like, 'Holy shit. That's unbelievable.' I knew Hugh Padgham and called him up to get that sound.

"It was the boom mic they use for talkback, which was fed through the talkback compressors on the SSL. And it would cause a huge amount of squashing of the drums and then you would gate it so it had this incredibly sort of electronic sound."

Face Of The 80's

"This idea came out of the New Romantic movement. I was going to the Blitz a lot (I taught Rusty the club's DJ to drum) and it was obviously a very preening kind of thing. And somebody asked me about it all and I said it was kind of like a New Romantic thing and I think that's where the term came from.

"I used to park my car on double yellows outside the club and I started playing a cassette of stuff I was working on to some guys I met at the bar and it turned out to be Spandau Ballet. They asked me to produce their album. Once they got their deal everybody at the Blitz became part of this interesting time. There was an excitement running through it all. And a sort of a panic at the same time. Like, someone's taking off. And if we don't get on the train, we're gonna miss it, you know? That's what I felt. I don't know if it was real or not, or just me."

New Religion

"This came before any of this album. We'd recorded the original demos in a place called Southern Studios, which is a place an electronics whizz called John Loder had built with three Revoxes in the back of his garage and linked up through to his living room in his house. Crass would record there. He upgraded to a 24-track machine and we would go there to do demos because it was relatively cheap and we loved John.

"This track came about because we were in and out of clubs all the time and it was the latter era of disco, and my feeling was that it was becoming this sort of new religion.

"We had the Fairlight CMI and a who's who of early synthesisers. Chris had a Casio deal so got early FM synths. We liked that brittle sound and layering synths up, but few could sync with other manufacturers.

"Chris had a Yamaha CS-80, which was revolutionary – touch sensitive and after pressure. And it was polyphonic, which was new. Then John had the Lyricon, with the Roland Jupiter-4. All kinds of devices on the bass. If Roland made something, we had it.

"And Pete was using analogue to MIDI converters. And every Boss pedal you can think of. Chris used the ring modulator a lot, too."

Like 'The Church of Disco', you know? People were starting to worship this music and the four-to-the-floor bass drum. So, that's where this whole idea came from."

Einstein A Go-Go

"The title came from our designer, John Warwicker-Le Breton. And John [L. Walters] had a melody he'd been messing around with and the two things came together. And, at the time we were writing it in the late '70s and early '80s, there was a lot of talk about nuclear war and articles about blueprints for briefcase bombs that us on the underground were fascinated by. And we had the whole Iran situation with the Ayatollah. And so, you know, the rise of religious fundamentalism, I guess. And so that's what *Einstein…* is really about.

"Musically, the idea with this was not to jump back and forth too much. It was all about making something with a very simple chord sequence. And very cartoonish kind of quality to it… But with a dark subject matter. The script for the video for this was written by a young Richard Curtis."

Norman Bates

"This was John's [L. Walters]. And that's actually my favourite track on the album. I love it. I love that track.

"I think the record label screwed that record up, it should have been a huge hit. But it was a really weird song, a really weird choice.

"John brought that song in, and it just really related to all of us. I've always been fascinated by the idea of what's 'normal'.

"It's just a classic beat. And with that darkness. And the idea that we built off the movie *Psycho* saying, 'I'm just a normal guy. My name is Norman Bates.' And the constant repetition of that.

"I don't know if you ever did this when you were a kid, but I used to say a word over and over and over, until it sort of loses its meaning and it starts to have a kind of mantra quality about it.

"So, the whole idea of, 'My name is Norman Bates. I'm just a normal guy,' was obviously not true. He was obviously not normal. And that also ties into the idea of what insanity is, right? What is it?"

> "I JUST REALISED THAT ONCE WE MADE THIS RECORD, THAT'S THE WAY EVERYONE WOULD BE MAKING THEM"

The Doll's House

"This started in a soundcheck, when I started playing that beat. Then Chris joined in and we really liked what we had, so we decided to turn it into something. John, Chris and I all lived close to each other in South London and we convened at my place to work on that song.

"Chris had a very deep knowledge of all music. Especially Schoenberg and Stockhausen and The Minimalists. And he was very much into the avant-garde with his electronic group, Accord.

"So he was the one who came up with the whole idea of, 'Look at your hands, look at your hands,' you know, again, and again. Which I just thought was unbelievable.

"Originally, he wanted to use that as a bridge on *Einstein A Go-Go*, but that was our sort of pop gambit, as it were, and I really didn't want to screw that up, you know? It would have possibly pushed it out of the commercial sort of zone it was in."

From The Tea-Rooms Of Mars ... To The Hell Holes Of Uranus

"This one is made up of the three tracks – *Beguine*, *Mambo* and *Tango*. And each part of it was started by somebody different in the band, if I recall. We'd wanted to use the CR-68, initially, which was the non-programmable Roland drum machine. And then they came up with the CR-78, which was a slightly programmable Roland drum machine. Warren Cann from Ultravox was the only person I knew could programme it really well. Anyway, we used the rhythm from that drum machine to lay it all up.

"And obviously, they're really cheesy, and we wanted it to be really cheesy. We were sort of mimicking that kind of music you'd hear in wine bars of hotel lounges, with somebody playing Hammond organ with a little drum beat, playing the tango. That's where the titles came from.

"And John had the idea of having the voiceover, like you used to get in the clubs, talking about what's going on and everything, which I absolutely loved." FM

In the studio with Richard James Burgess

"I was fascinated by the idea of an electronic drum kit. I'd been triggering sounds from my drums for a few years, wiring up little carbon mics from old telephone mouthpieces to pick up sounds and trigger the electronics.

"And I'd been trying to make sounds with my [EMS] Synthi A, but realised that the rise time of the envelopes wasn't fast enough – it needed to be around .2 of a millisecond. Then these microprocessors came out with new chips that had tons of transistors on, meaning the distance between components was less, so the electronic signal moved faster.

"I approached Dave Simmons about it because he had the SDS-3 out. And we messed around in the studio to create sounds using an ARP-2600. Then he basically built the electronics for the SDS-V. I got a 'breadboard' version, which was a piece of wood with a bunch of components screwed on to it and wires hanging off. And that's what we made *Tea Rooms…* on. The SDS-V hadn't actually been built yet as a commercial device."

WANT TO KNOW MORE?

For everything about the recently re-formed Landscape, including the epic new boxset, hit up: **landscape.band**

LIKE IT? TRY THESE...

Japan
Adolescent Sex

Also featuring great use of the aftertouch on the Yamaha CS-80. Burgess loved hearing the envelope changing as chords were played.

ADD THESE TO YOUR PLAYLIST:
'Transmission', 'The Unconventional', 'Wish You Were Black'

Peter Gabriel
Peter Gabriel

Includes that classic '80s Phil Collins gated reverb drum sound. Burgess knew the engineer, and ended up in the same studio to get his twist on it.

ADD THESE TO YOUR PLAYLIST:
'Intruder', 'No Self Control', 'Start'

Easy Street
Easy Street

Burgess' soft rock band before Landscape. Chris Heaton pops up to play piano, though. And future Art Of Noise engineer Gary Langan mans the boards.

ADD THESE TO YOUR PLAYLIST:
'Feels Like Heaven', 'Lazy Dog Shandy', 'Easy Street'

Spandau Ballet
Journeys To Glory

The first of two gold records Burgess produced for the group, catapulting the New Romantic movement onto the world.

ADD THESE TO YOUR PLAYLIST:
'To Cut A Long Story Short', 'Reformation', 'Mandolin'

Landscape
Landscape A Go-Go (The Story of Landscape 1977-83)

This monster boxset of near peerless early work just dropped. Featuring 84 choice tracks from their back catalogue, a book, artwork, remixes and the full cooperation of the original group.

ADD THESE TO YOUR PLAYLIST:
'It's Not My Real Name (UK cassette album mix, incl. electric trombone solo)', 'Caterpillar Tracks (Live in Norwich)', 'Norman Bates (12-inch without narration)'

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ALBUM OF THE MONTH

Headache The Head Hurts but the Heart Knows the Truth

PLZ Make It Ruins

Vegyn's an interesting fella: son of British songwriter Phil Thornalley, perhaps best known for co-writing Natalie Imbruglia's *Torn*, he spent the first decade of his career working with Frank Ocean, Travis Scott and JPEGMAFIA while heading up London-based label PLZ Make It Ruins and releasing some of the most inventive electronic beats coming out of England's capital. While 2022's *Don't Follow Me Because I'm Lost* collated 75 (!) pithy experiments into a stylistically diverse mixtape, his latest – a joint release under the alias Headache – sees the producer teaming up with mysterious wordsmith Francis Hornsby Clark for a baffling and brilliant spoken-word album voiced by an AI-powered speech synthesiser.

In contrast with his earlier work, Vegyn's carefully calibrated beats take a backseat here, the spacious arrangements making room for a series of oddly poetic vignettes spoken by an AI bot with the voice of a slightly resigned-sounding middle-aged British man. The words range from the nonsensical – "The thing is, I'm not just a nose with legs. The cow is the land and the horse is for water. But can you really feel the sound of two hundred people eating?" – to the smirk-inducing – "though fish are not animals, they do have feelings. Think about that the next time you take a shit in the sea" – to the strangely insightful – "you don't need to sleep in your bed every night, the street is just as comfortable. Life isn't all funky shit and faces you pull in the mirror" – and converge on themes of failed love and existential doubt, blending surreal humour with a touch of poignance over crisp breaks and soaring synth pads.

Matt Mullen

ADD THESE TO YOUR PLAYLIST

Truisms 4 Dummies, That Thing with the Rabbit, Mission Impossible III

VERDICT 8

ON OUR PLAYLIST

TRACK

Olof Dreijer, Rosa Rugosa

Hessle Audio

Best known as one half of The Knife alongside sibling Fever Ray, Olof Dreijer's latest solo single sees the producer landing on leftfield club institution Hessle Audio. Dreijer has an impressively distinctive sound for a purely instrumental musician. The percussive synth lines make liberal use of pitch envelopes and portamento, achieving a nervous energy reminiscent of the Knife's best work. Here though, they're laid out across a minimal, shuffling club beat and sweeping, grime-adjacent bassline that feels tailor-made to land hard on a big sound system. ***Si Truss***

ALBUM

Arthur Russell, Picture of Bunny Rabbit

Audika Records

It seems apt to discuss the legacy of the late Arthur Russell this month, given FM's theme, this issue, of the unfinished track. The cellist, poet, disco producer and, latterly, lo-fi muse, could be seen as something of an icon for the (largely) solo bedroom recording artist ideal as we know it. His working environment brought independence, creative freedom but also, as documented in testimonials since, the torment of perfectionism. This new compilation comes largely from recordings laid down around the time of the sole album released within his lifetime, 1985's *The World of Echo*. Those familiar with Russell's other works will have trained their ears for the experience of listening to his work; the whirr of tape machines, the poet's love of, yes, echo, the poignant spaces, and the thrill of staying tuned for the dazzling fragments of melodies that unfold. Above all that is his singular voice; an artist whose sensibilities were ahead of their time, but still era-particular in turn of phrase. Reviewing the work of a beloved, late artist feels somewhat pointless (blowing away the lie that your words are intended to guide an artist's future works) suffice to say, no, this does not contain the landmark 'hits' of earlier releases. In some ways that should provide solace to the tweakers, sketchers and befuddled producers out there. Sometimes – give or take Russell-level talent – it's enough just to enjoy hearing someone commit heartfelt sounds to record, for the love of it. And there's certainly a lot of that here. ***Kate Puttick***

RECOMMENDED

The Japanese House
In the End It Always Does

Dirty Hit

© Jay Seba

ALBUM

Singer-songwriter Amber Bain is The Japanese House, an indie-pop artist signed to British label Dirty Hit, best known as the launching pad for world-dominating, controversy-courting pop sensations The 1975. Bain's second album, *In the End It Always Does*, was written alongside one of that band's less contentious members, George Daniel, with production and engineering handled by Chloe Kraemer. Like The 1975, Bain is clearly comfortable inhabiting a variety of musical guises, from dewy-eyed ballads (*Sad to Breathe*) and sprightly pop numbers (*Touching Yourself*) in the first few tracks. What ties the album together is Bain's yearning vocals, liberally processed and dripping in Auto-Tune, and a vividly contemporary production style that leans into synths and sound-mangling effects. ***Matt Mullen***

VERDICT 7.5

Al Wootton
We Have Come To Banish The Dark

Trule

ALBUM

A decade ago, Al Wootton was working under the name Deadboy and making post-dubstep that melded skittish garage beats with R&B samples. Recent years have seen him retire that alias in favour of his own name, switching to a rawer, more percussive sound in the process, although one that spans techno, dub and jungle. This is his second album as Al Wootton, arriving, as with the first, on his own Trule label. It's a more focussed, minimal record than its predecessor, trading some of the genre-hopping for a more coherent and refined sound. While there's still variety – ranging from the wonky high-tempo IDM of *Number, Weight, Division* to the beatless throb of *Becoming Light* – it's all held together by a commanding use of negative space and evocative dub techno atmospherics. ***Si Truss***

VERDICT 8

FINISH
MORE TRACKS
Turn your unfinished ideas into release-ready records – fast!
1.ARRANGEMENT TIPS
2.MIXING HACKS
1.CREATIVE STRATEGIES
2.ARTIST ADVICE
Beat writer's block, break out of the loop and become a quick, productive and reliable project finisher – guaranteed!
Technics

BOUNCING IDEAS Noisia are an act who work both individually and as a collective

Countless electronic musicians suffer from getting stuck in a loop – endlessly starting ideas but never seeing them through. This issue, we're here to help you break free of writer's block and finish more projects than ever before.

For all of their flexibility and power, our modern, computer-centred studio environments can often work to hinder productivity as much as drive it. The sheer scope and choice can be overwhelming. We have access to millions of potential sounds, software recreations of practically any piece of gear you can think of, an unlimited well of samples and sources of inspiration – all of which can be endlessly edited, saved in multiple reworked versions, recalled instantly. It's easy to get overloaded with choices and information; and that's before we even consider the distractive peril that comes from constantly being connected to the internet and social media.

These are just some of the factors that can result in the infamous 'writer's block'. It's not a condition that exclusively affects music makers, but it can hinder us – particularly solo producers – in some specific and unique ways. Symptoms include overworking a simple musical idea into an overblown mess, abandoning projects that are 80-90% finished to start something new, or cold sweats and sleepless nights at the mere prospect of turning an eight-bar loop into a six-minute record.

Some musicians are lucky enough to only experience these struggles on occasion, whereas for others it becomes an endless cycle, preventing them from completing anything musically worthwhile. How can we train ourselves to break out of this loop and become the sort of artist that naturally develops unfinished sketches into full-blown releases? How can we develop a workflow that lets us naturally turn our basic ideas into satisfying arrangements? Over the next few pages, we're going to take a look at some of the problems preventing you from finishing music and discuss strategies to help overcome them.

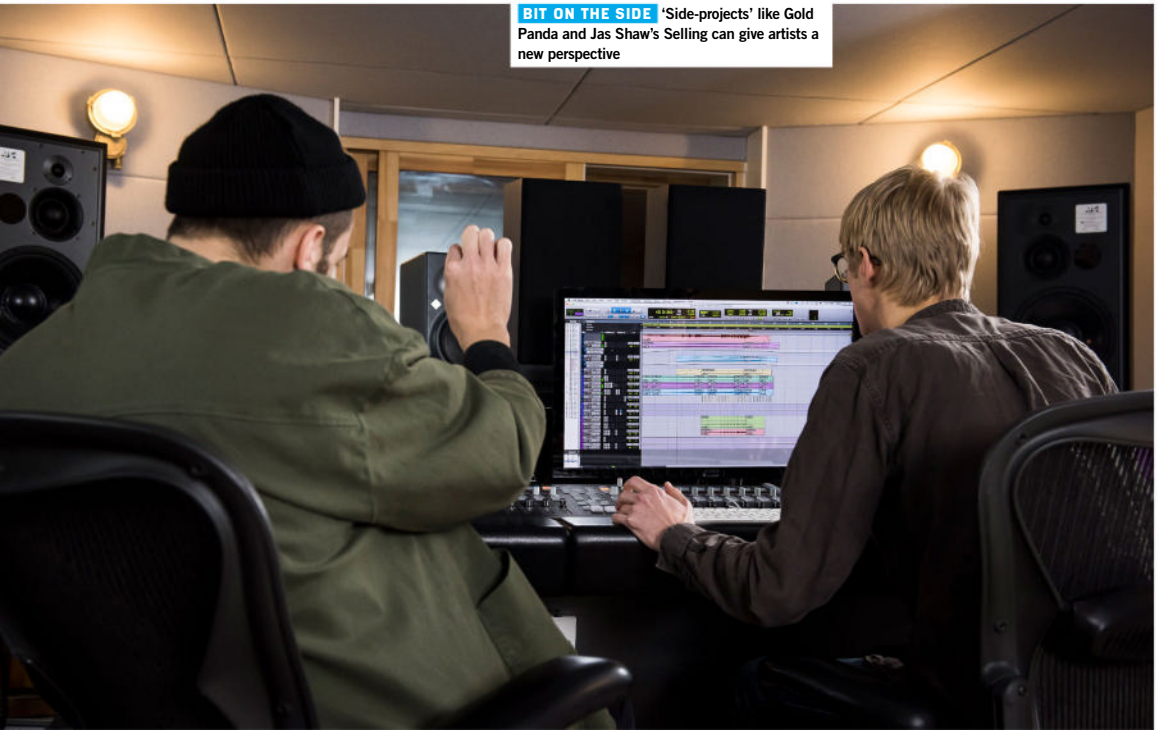
WHY IS IT SO HARD TO FINISH A TRACK?

There are certain conditions specific to electronic music making that can make writer's block a particular problem. To understand why, it's important to consider that the act of making music has changed dramatically over recent decades. Back in the earlier days of recorded music – and still commonplace throughout a lot of rock and pop – multiple professionals would be involved in the creative process, each focusing on a specific role. The artist(s) themselves would channel all of their efforts into writing the song, a studio engineer would be responsible for tracking, someone else might mix the separate tracks together, and a final person would master the record and deliver the finished product. Potentially all overseen by one or more 'executive' producers. Each individual could fully concentrate on their assigned task without deviation, whether it be creative or technical.

For a lot of modern music makers, these separate roles have now merged into one. Solitary individuals try to tackle each part of the music making process within the same studio session, working on every element of a track from writing through to sound design, mixing, arrangements, mastering and even the artwork and logistics of a release. There's an undeniable freedom to all of this, and it certainly allows many creative artists to shine in a way that could well be throttled out of them by the traditional world of major studios and record labels, but this jack-of-all-trades approach can mean that we're constantly interrupting the creative side of our brain (responsible for generating ideas, composing, jamming and arranging) by allowing the logical/technical side of our consciousness to take over.

To overcome this conflict, be aware of your own habits and divide sessions into focused 'jobs': for example, if you're creatively jamming and composing, don't try to EQ and compress each sound there and then. Likewise, set aside a dedicated mix session once creative tasks are complete. Compartmentalise sessions and you'll be able to reach the frame of mind needed for that task.

THERE ARE CONDITIONS SPECIFIC TO ELECTRONIC MUSIC MAKING THAT CAN MAKE WRITER'S BLOCK A PROBLEM



BIT ON THE SIDE 'Side-projects' like Gold Panda and Jas Shaw's Selling can give artists a new perspective

The challenge of solo creativity comes down to more than simply getting distracted though. A creative process that involves multiple people also allows us to respond to ideas in a way that's hard to do by yourself. It's far easier to bounce ideas between two or more people than it is to endlessly work on them by yourself. That's why, aside from the tactics we'll examine over the following pages, collaboration with other creatives remains a great way to boost your musical output.

A certain amount of discipline is key too. Set yourself a target of a set number of hours in the studio, then do everything you can to finish a track in that time; focus upon speed and the 'big picture' broad strokes; switch off from any technical aspect (mixing, synth design etc) and keep the momentum going as you race towards the finishing line. The goal is to reach a zen-like state of mind where the track pretty much writes itself – something that only comes through practice and discipline.

STRATEGIES FOR CREATING FINISHED ARRANGEMENTS

LEARNING HOW TO FLESH OUT TRACKS is key to becoming the sort of musician who finishes every idea. Most electronic musicians have experienced getting 'stuck in the loop'; creating simple 16- or 32-bar phrases, but then losing motivation when it comes to turning these into full length arrangements. Working quickly is crucial. Rather than listening to one looped section for hours, getting even just a rough arrangement down can help overcome one of the major hurdles in the track finishing process

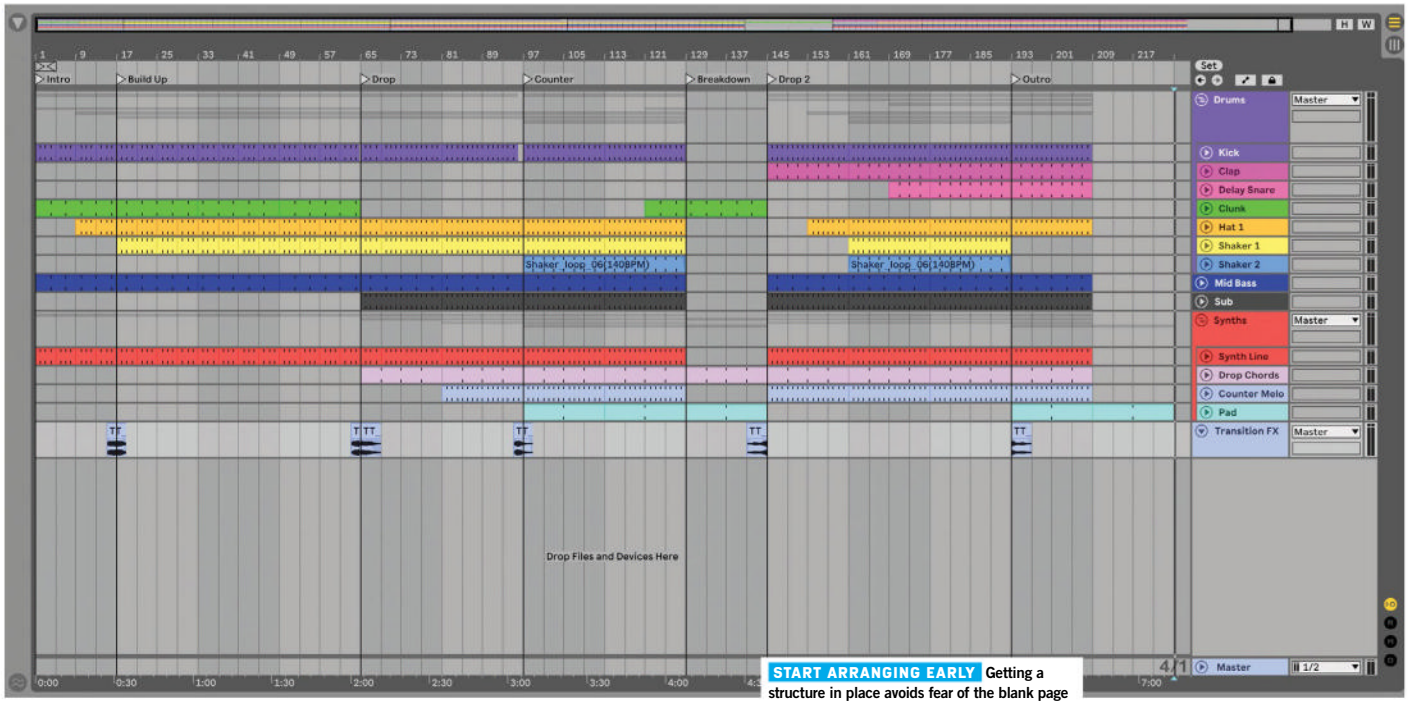
START ARRANGING EARLY

Make a habit of sketching out an arrangement early on in your creative process. As soon as you have a few fundamental building blocks – for example, a chord progression and basic beat – duplicate these across your timeline to create the foundations of a full track. Delete elements as necessary to designate an intro, outro and breakdowns. Break your arrangement up into 8-bar sections and colour code or label these for easy delineation.

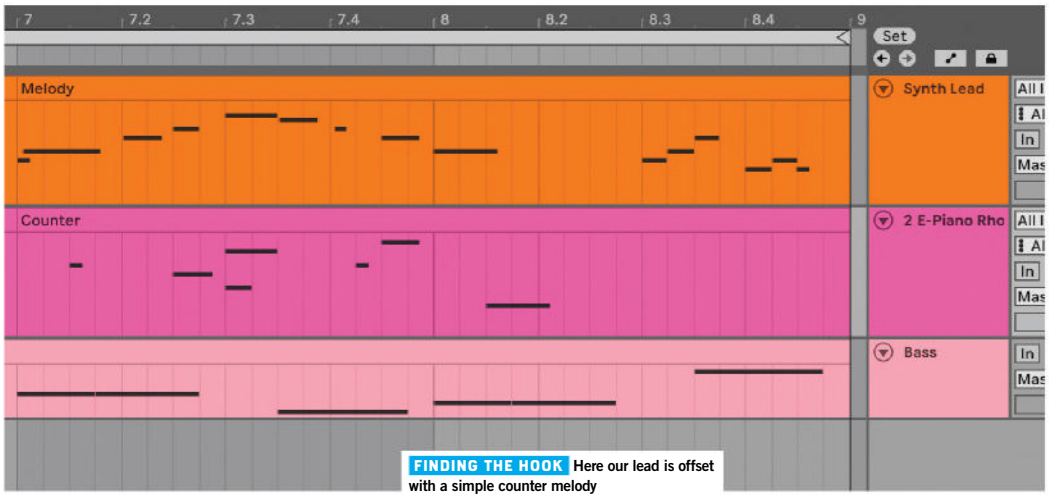
Your aim now is to change the energy of your track in some way each time you reach a new section. As a rule of thumb, there are three ways to do this: add an element, remove an element or change an existing sound – for example, changing the instrument used to play your lead melody, or moving part of your bassline up or down an octave. Knowing when to add and when to take something away is a matter of personal preference. The classic method, in dance music at least, is to build energy by adding new elements up to the breakdown. However, there's no reason not to try inverting expectations or making multiple changes at once.

FINDING THE 'HOOK'

One important step when it comes to developing a track lies in establishing what element provides the focal point, aka the hook, of your track. This should be the most distinctive element of your composition. In a pop or rock song this would usually be the lead vocal, but when it comes to electronic or instrument music, the hook could be any number of things, from a lead synth riff to a bassline or even, at the more percussive or experimental ends of



START ARRANGING EARLY Getting a structure in place avoids fear of the blank page



FINDING THE HOOK Here our lead is offset with a simple counter melody

dance music, a particular percussion sound or rhythmic pattern. Whatever genre you're working in, however, you should be able to identify a specific focal point for your track (even the most ambient music is likely to put a specific sound or texture to the fore above others).

The reason it's important to identify this focal element is it will inform a lot of your decisions when it comes to arranging. For instance, your hook will likely be something you want to build up to, meaning you may choose to remove it from your track's intro and breakdowns.

It will also provide the basis from which to create elements like counter melodies. For example, if you have a descending synth riff as your lead hook, try creating a counter melody that ascends through the same scale, with a rhythm that works around, rather than on top of, your lead line. Introducing this in the background after two or four repetitions of your lead will help add depth and keep your lead hook fresh.

THE REASON IT'S IMPORTANT TO IDENTIFY A HOOK IS THAT IT'LL INFORM A LOT OF YOUR ARRANGEMENT DECISIONS

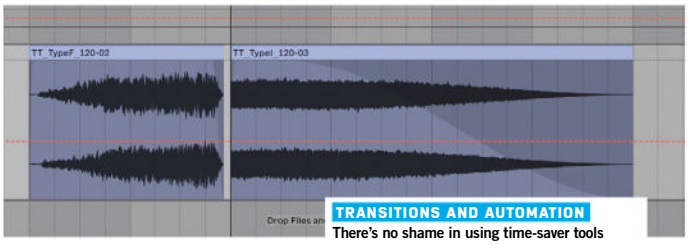
TRANSITIONS AND AUTOMATION Following the steps above will allow you to turn your ideas into a basic arrangement, but the result will likely sound rather static and abrupt – like a collection of loops strung together, as opposed to a finished composition. The key to changing this lies in creating dynamic movement both within and between sections.

The easiest way to do this is by using transition FX. These are things like white noise sweeps, pitched risers, crashes or reversed cymbals – elements that can be placed at the start or end of a loop in order to create a pull-in or release to signify the change in your track. When it comes to sketching out arrangements, it can be handy to have a stock of these ready to go; creating FX from scratch can be a fiddly process that will slow you down when you're trying to get your track laid out. Even if you're just using placeholder FX that you plan to replace when it comes to applying finishing touches, having some sort of transition in place will go a long way towards giving your arrangement the correct 'feel', and could help inspire what elements need to be added or removed for the next section.

Try using a dedicated studio session to create your own pack of custom transitions, or simply reach for one of the countless ready-made sample packs available – we've included several from the FM archive on the download page for this issue.

An equally essential technique for introducing movement to an arrangement is through automation of sound parameters and effects. The most obvious example of this is by automating the cutoff point of a low-pass filter to make a lead, bassline or chord progression brighter as a track builds. Realistically though, there's an endless list of parameters that can be adjusted to change the tone of a track and build dynamic tension, such as a synth's pulse width, or the decay time of a reverb or rate of an LFO. Even subtle sonic changes through simple modulation will do a lot to keep listeners hooked.

For quick arranging, try setting up a few effect returns with some extreme effects that can help create builds, breakdowns and transitions. In-your-face reverbs or delays are great for this, as are multi-effect tools like Cableguys ShaperBox or SugarBytes Effectrix.



TRANSITIONS AND AUTOMATION There's no shame in using time-saver tools

QUICK TIPS

1 Commit early: bounce plugins or external instruments down as audio as soon as you're happy, to avoid endless tinkering and reworking. If you need to make changes later, get creative with effects or editing.

2 Get hands-on with the automation process by mapping key parameters to your favourite MIDI controller and performing changes in real time.

3 Use reference tracks for creating arrangements. Load a release you're a fan of into your DAW and make a note of where builds, breakdowns and significant changes occur.

4 Instead of transition FX, signify changes in your tracks with edits to the current pattern. Try cutting out the kick drum for a bar before the change, or creating snare rolls that ramp up in pitch and/or timing.

FIVE RULES TO HELP YOU FINISH MORE TRACKS

REGULARLY FINISHING CREATIVE projects takes self-discipline. Try following these workflow rules to help motivate yourself

DON'T ABANDON ANYTHING If you reach an impasse with a project and can't get it over the finish line, don't simply delete your work. Make sure to save your in-progress projects – and label them clearly – so you can return to them later. It's amazing how returning to something a few days, weeks or even months later can allow you to see it from a fresh angle. Better still, bounce out individual elements from the project, such as beat loops, chords or riffs, so that they can be used as later ammo.

DON'T HOARD HALF-FINISHED IDEAS **Perhaps contrary to that last tip, don't get into the habit of simply filing away every project and ending up with a hard drive stuffed with an ever-growing stack of half-finished tracks. Enforce a hard limit on how many projects you allow yourself to have on the go at any one time. For example, set a maximum of ten projects you're allowed to keep, and when you reach this limit, force yourself to adapt or finish an existing idea before you're allowed to start anything new.**

SET DEADLINES Most of us find we work quicker and more efficiently if working towards a deadline. This can make it much easier to finish a track when working towards, say, a delivery date set out by a record label. Even if you're working independently though, try enforcing deadlines on yourself. Create tracks specifically for a gig or DJ booking, or aim to finish a track every week or month. Be realistic though; deadlines can be great, but equally can have a negative effect on your outlook if you repeatedly miss them.

REMIX YOURSELF **Starting from an existing finished project and rearranging it is often a lot easier than creating something new. Try starting with a track you've previously finished and using it as a basis for your next track. Somewhat counterintuitively, this can actually be a great way to prevent yourself repeating ideas. The rule you need to set here is that your new track must be completely different from your starting project, thereby forcing you to up-end your previous sounds and track elements.**

STICK TO THE PLAN It can be easy to get distracted by a new idea halfway through making a track and end up completely changing the feel of your original idea. This could create something great, but also result in losing something good just because it no longer feels fresh. Avoid this by devising a plan of what you want your track to be before you start, for example '130bpm percussive techno tool', 'beatless synth jam', 'peak time DnB'. Stick to this original aim, filing any new ideas that arise along the way to one side for a later date.

NICE STUDIO Distractions can come in abstract form… or from what's around you

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FINISHING TRACKS: ARTIST ADVICE

FINALISING THE LAST few bars of a project or adding those all-important finishing touches to a mixdown can be an intimidating prospect for all of us, from those at the beginning of their journey into music production to artists with hundreds of releases under their belt. The question of when exactly to wrap it up when you're building a track is one that's puzzled artists of all stripes, from bedroom beatmakers to hit producers, and each one has different methods for knowing how to make this crucial decision effectively.

We've spoken to more than a few experienced music-makers over the years, asking each artist how they conclude their creative process and decide when a track is well and truly finished. Here's what they said…

HERMITUDE: "When you listen back and you're scrounging for ideas to put in it, you're done. If I can't hear anything, [it's] time to let go. Completing is usually the hardest bit, but it's a nice vibe not to try and over-cook things. When things are a bit rough around the edges, it's more interesting for the listener, rather than a fully-polished piece. People like to hear your humanness."

© Jenny Slattery

ANTHONY NAPLES: **"I read this in something Kieran [Four Tet] said in an interview. He said that what makes him a producer is that he can decide when something's done. I feel like that was really ingrained in me early on. Just because you might think, this is too simple, or this doesn't look the way that other people's music looks on the screen… but it's like, no, just listen to it. Does it sound like a piece of music or not? Okay, if it does, then it's done. It doesn't need to be more complicated than that."**

KELLY LEE OWENS: "Although towards the end I'll often go very deep in terms of automation, and nudging things around, I know the place I'm trying to get to. I know when to say when, and that's usually when the flow is right, when I can listen back and not need to change anything. I think that comes with a trusting of one's self."

CHRISTIAN SMITH: **"So much time is wasted by producers that have tons of half-finished productions. At the end of the day, one finished song is better than 100 half-finished! I have often been in situations where I've been listening to the same loop for over 10 hours and ended up not knowing if the track is good enough. One way I usually overcome this is by making the song all in one session and mixing it down the next day. If it passes the 'day after' test, it's usually good to go."**

LONE: "The track is finished when I can listen to it without wanting to change anything.

KELLY LEE OWENS **"I know when to say when, and that's usually when the flow is right"**

© Kim Hartley

© Linnea Bullion

CLAUDE VONSTROKE "For me, it's finished when I start adding things that do not affect the quality…"

I often fall into the trap of finishing a track, exporting it and thinking I'm done with it only to then listen back the next day and realise there's slight tweaks needed – or sometimes whole changes! I guess I'm quite an impatient person so I always want to finish the track and move on to something new. There's something about catching a vibe quickly and then moving on which has always appealed to me."

MAFRO: **"A track is finished once I can listen through it without getting bored. There are only so many arrangements that work, so if you're not sure just reference another song you like. If you are adding things and they are either unnoticeable or making the song worse, that is a sign you're probably done."**

HAIDER: "The saying 'art is never finished, only abandoned' is ever so true, especially in the age of computer music where you can constantly revise and re-edit things. In the past it's been really difficult for me to know when a track is finished as I can get stuck in the mindset of 'just one more element' forever. It's for this reason I tend to bounce my tracks off people whose opinions I really trust to listen to a track and tell me if they feel it sounds finished or not."

MASON MAYNARD: **"I never really know when a track is finished as most of the time I'm trying to expand and make it as best I can. But for me I feel like they 'get away' – I may play them and if the reaction is good then I can live with letting that one go."**

CLAUDE VONSTROKE: "For me, it's finished when I start adding things that do not affect the quality. At this point I usually turn the other direction and mute a few tracks to see if I can actually subtract some things. It's always good to do subtraction exercises as well as addition exercises… ask yourself, what do you really need to be in there?"

NOGA EREZ: **"The biggest question. My answer at the moment is: 'deadline'! Our nature is to continue trying to perfect a song; that can go on forever. It's because, really, finishing something creative is always about cutting a process in the flash. We think we can do better but at some point we just do different. Even if you don't have people setting deadlines for you, setting them for yourself is important. It makes the process itself better too. Knowing something had an ending puts everything in perspective."**

OBJEKT: "Once I'm past the sketching stage and throwing ideas at the canvas I'll always open up the bounce from the last session, listen to it – ideally in iTunes, make notes and timestamp whatever needs changing. That could be something as major as getting rid of a whole section to a new bassline or something minor like there's a little bit too much frequency on the snare. Once I have half a page of notes on what I want to change, I'll go into the DAW project and be pretty strict about only changing the stuff I've written down. Once that's done, I'll bounce another copy and start the whole process again until I get to a point where the notes are essentially negligible."

MORCHEEBA: **"The point when I want to kill myself is usually a good indicator that the track is finished. It is best not to overwork things; it's either good or it isn't."**

© Kasia Zacharko

OBJEKT "I'll go into the DAW project and be pretty strict about only changing the stuff I've written down"

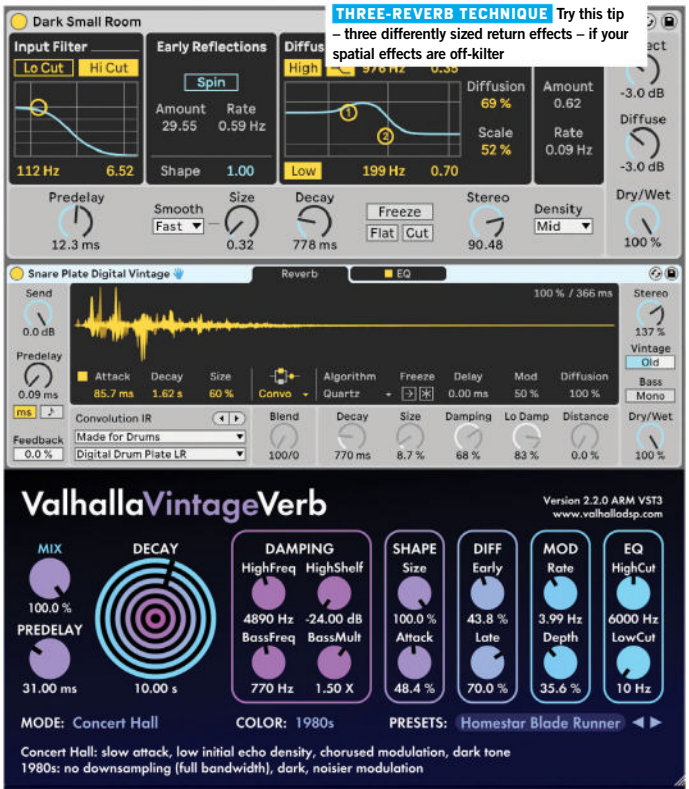
COMPLETING MIXDOWNS

ONCE CREATIVE HURDLES have been overcome and you've conquered the arrangement, it's time to turn those sketched out ideas into a finished track. But the process of mixing a track and fine-tuning sounds can often be as daunting as creating the track itself. Reduce the pain and effort required to mix your next track with these time-saving tips

DON'T BE AFRAID TO OUTSOURCE IT Before we get into the practical mixing tips, let's get one basic point out of the way first: if you're really struggling to mix a track, there's no shame in getting someone else to do it for you. There's a longstanding and misguided stigma within electronic music that in order to be a 'real' producer you need to handle every part of your track creation from end-to-end. The truth, however, is that even amongst professionals, not every musician's skillset includes both the creative and mixing sides of making music. A lot of talented and successful electronic musicians make use of a third party for mixing and mastering their tracks. Rather than being a concession, there are actually a lot of benefits to having a second set of ears working on your creation. Often somebody coming to your track 'fresh' will be able to pick out issues or suggest ideas that you've missed through overfamiliarity with it.

Obviously, getting a professional to mix your tracks comes with a cost, which is a factor that could understandably put many independent musicians off the idea. There are potential ways around this though; try connecting with other, similarly minded musicians and organising a 'track swap' where you each offer mixing advice and support.

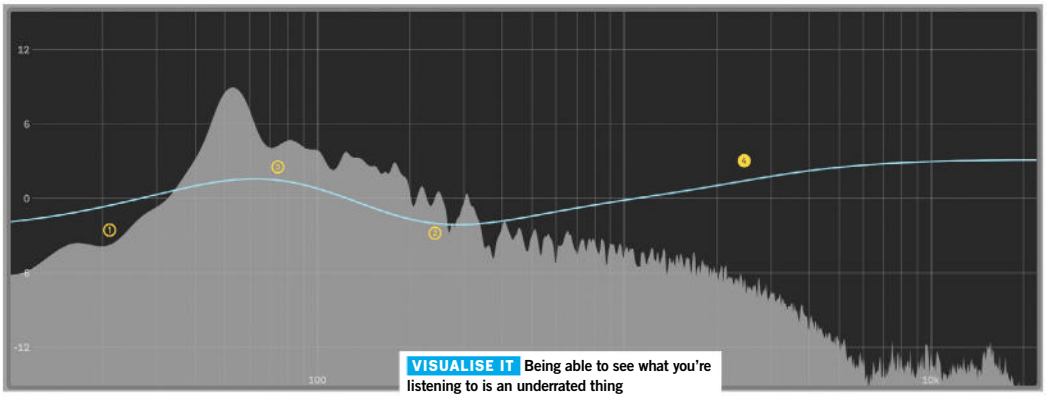
REFERENCE! **One of the quickest and most effective ways to make mixing decisions is to reference your work against well-produced commercial releases that you like. It's one of the best ways to understand how pros achieve sonic consistency, and set yourself a benchmark to work towards when writing and mixing club music. Gather a pool of reference tracks, load them into your latest mix project, then flick between your mix and the reference tracks, comparing as you go.**



As referencing is such an accepted technique nowadays, you may want to make the process more convenient by investing in a dedicated 'mix comparison' plugin such as Sample Magic's Magic AB, Mastering The Mix's Reference or MeldaProduction's MCompare. Once loaded on your master bus, these plugins allow you to load in multiple songs, set up loop points, then A/B between your DAW audio and said tracks with the click of a button.

SET UP PRESET CHAINS Most DAWs let the user combine and save effect patches in some form, as with Live's Audio Effect Racks or Logic's Channel Strip presets. Use these to create and save combinations of effects that you can apply to any use cases that crop up regularly in your tracks, such as drum busses, auxiliary effects or master processing. If you're not sure where to start, there are plenty of preset chains that can be downloaded online, both for free and commercially; and your DAW itself likely has some decent presets too. Be aware that these sorts of effects are very context dependent, so don't expect a single 'one-size-fits-all' solution right off the shelf.

THREE-REVERB TECHNIQUE **It can often be a struggle to balance multiple spatial effects in a mix, often leading to the whole thing feeling washed out or muddy. An efficient way to balance reverbs, favoured by some pro engineers, is to use a**



VISUALISE IT Being able to see what you're listening to is an underrated thing

combination of just three reverb types set up as return effects, each aimed at different-sized spaces or reverb styles. The classic approach is to use short, medium and long reverbs, typically with decay times of around <1s, 1-2s and >2s respectively. It works well to mix up reverb types too; algorithmic room reverbs work well for short verbs, plates are great for mid-sized sounds, and hall reverbs for the longer effects. Send each element of the mix to these by differing amounts to create space.

QUICK EQ TIPS There's a minefield of potential EQ mistakes that can really affect the sound of your overall mix.

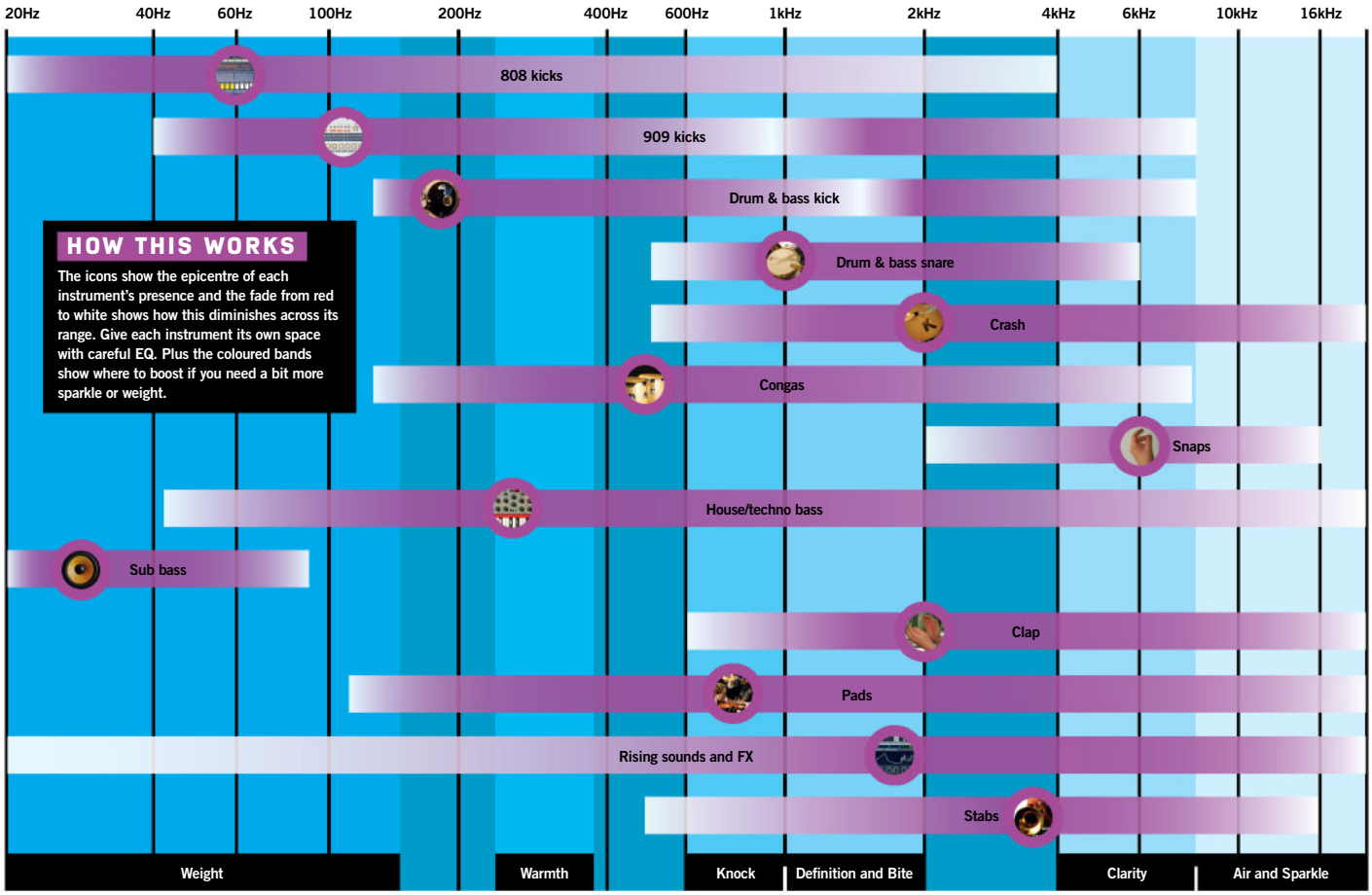
One common one is overzealous use of high/low-pass filtering on individual channels within a mix. Typically, it's desirable to use high/low-pass filters for removing unwanted frequencies, freeing up headroom within the mix and increasing clarity of individual elements. This can be a great technique if applied carefully using gentle filters; however, many digital EQ plugins offer much steeper filter types which can potentially make the individual elements of the mix sound too separate. A good rule of thumb would be to use 12dB/oct or 18dB/oct filters for high/low-pass work as this setting will offer you the best compromise between removing unwanted frequencies and retaining a cohesive, musical sound.

Paying careful attention to what frequency the filters are applied at is also crucial – filtering out too many low frequencies from individual elements can lead to a thin-sounding mix for example, while overdoing the low-pass filtering can remove too much air resulting in an overly dull sound. A great tip is to solo the channel you're filtering and listen carefully to how the filters affect the sound before seeing how the filtered channel sounds in the context of the whole mix. If the overall sound is subsequently affected more than you'd like, try backing off the filters a touch.

VISUALISE IT If you're not blessed with monitoring that accurately reproduces low sub bass or shimmering high frequencies, a frequency analyser such as Voxengo's excellent (and free!) SPAN will allow you to cross-reference the sound coming from the speakers with a visual indication of what your low/high-pass filters are doing.

A CLUB TRACK'S FREQUENCY MAP

Fit your mix together and give your tracks room to breathe with our simple guide to frequency ranges



SEBASTIAN MULLAERT

Sebastian Mullaert talks to **Danny Turner** about his mentorship programme In Bloom and live jamming with Dorisburg

© Kia Valavaara

Integrity lies at the heart of Sebastian Mullaert's outlook on creativity and sound. Best known as one half of the production duo Minilogue, his solo projects have become increasingly emboldened in recent years. Prising himself from the comfort of his luxurious cabin studio, Mullaert has sought to test his creative ideals through collaboration with likeminded artists and students enrolled to his In Bloom mentorship programme. Mullaert's latest partnership with Stockholm-based producer/DJ Alexander Berg (aka Dorisburg), typifies his newfound approach to creativity. Having found a common language with the fellow Swede, the duo returned to Mullaert's studio in Röstånga to create a collection of audio jams. After a pandemic-induced pause, the duo then took the recordings to Malmö's Inkost venue where, via a series of live improvisational sessions, they created the abstract electronic album *That Who Remembers*.

When did you come across Alexander Berg's work, and what made you think that collaborating would be a good idea?

"I connected with Alex's music when he started to release under his solo project Dorisburg. I felt a very strong connection with his album *Irrblos* on Hivern Discs and his releases on Aniara Recordings, which is why I released an EP on that label for one of my other projects. When I launched my Circle of Live project in 2017, I was thinking about certain artists I wanted to invite, and Alex was one of those. In connection with that, we played together live quite a few times and he came to my studio in Sweden to make music for the first time in 2018. What we did back then was the seed for this new album, *That Who Remembers*."

Can you take us a little deeper into that process?

"During the pandemic, I evolved my studio process and started a mentorship programme under Circle of Live called In Bloom, which is now an educational platform where I try to inspire and share my tools and workflow to allow students to develop. By doing that, I understood more about what my workflow looks like and what works for me as a solo artist. With Alex, I felt so well-connected personally and musically that I wanted to invite him into that process to see how it would work. We did a number of very free and unpretentious jams in the studio, recording different tracks separately from each other using a few machines. During the pandemic, everyone's focus navigated to new realities, but at some point in the middle we decided to pick up where we left off."

Tell us more about In Bloom and exactly what you're teaching students?

"It's an educational branch of Circle of Live. I do most of the classes, but I also have a little crew of teachers who have their own mentorships. My class has three steps, the first two are 10-week online courses and the last is a one-year session. Creative expression is the key to my teaching and something that is in our nature and accessible to everyone, but in my view it's quite misunderstood in our society. The view of creativity and creative people has been distorted by this idea of someone being innovative, but I don't believe the two should be mixed up. Some people just happen to be innovative at a particular moment in time."

Do you feel the link between creativity and innovation is too strong, particularly as innovators are few and far between?

"Everyone is creative and we need to express that to feel full. To me, creativity is necessary to heal and find balance in one's life. My whole work is based on that and when it comes to electronic music I try to share ways to move away from certain misunderstandings in that field. The most common unbalance is that electronic music is a thought-based activity, which is a bit ironic because the reason that dance music is so popular is because it's an invitation for an audience to be physical and express themselves. For me, it misses the point of music and musical expression, which is a sensorial experience. That's what I like about my workflow with Alex; it's a means to feel and to sense, and in doing that something takes form."

Will you direct students down a particular creative path or would that defeat the object?

"It's very common for us to tell people that they sing out of tune so they should not sing, but judging the result hinders people's need to express something that is very important to them. The mistake that most people do every day is to calculate things that should not be calculated. Of course, some things need to be evaluated and measured, like healthcare and tax, but creative expression does not need to be measured and doing so hinders people from finding their balance."

One element of the music-making process that could be construed as being calculated is production. What is your approach to teaching that?

"The first part of the mentorship is quite holistic, so it includes everything from meditation to ways of collaborating, nature, improvisation and my take on creativity but also my studio setup, workflow and live setup. We also teach people how to reach out with their music and all the different things you need to know as a professional artist, such as publishing, management, labels and booking agents. The second step is much more hands-on and focused on setting up an Ableton template, working with sound design, recording, making and arranging sketches and connecting and improvising with other people. The third part is for those who want to create a bigger piece of work over a longer time period, like an album project or live set, using my coaching or presence on a more one-to-one basis."

What results have you seen from students in terms of them realising a final product?

"We had 15 artists from a wide range of backgrounds and levels of experience who all faced quite different needs and challenges. Almost all of them have completed recordings and songs that can be filtered down or curated into one piece of content, so the next big step is to send that out or help them to find a sense of community. Of course, some people really want to become artists, but my emphasis is not about making people famous, rather the

"PART OF MY MENTORSHIP IS QUITE HOLISTIC, SO IT INCLUDES EVERYTHING FROM MEDITATION TO WAYS OF COLLABORATING AND IMPROVISATION"

© Johan Sundell

opposite. For me, we should always start by trying to connect to that precious thing called creativity, then what really matters will become clearer and easier. A lot of artists who are professional and well-established also struggle to find their flow or feel like they have lost something, but it's not difficult to take a few steps back and rediscover what you need to do to allow that natural creativity to start flowing again."

By introducing the concept of understanding creativity first, are you basically teaching people not to run before they can walk?

"What I'm saying is not difficult and quite obvious. I look at my own kids who are at elementary school, but it feels like most Western educational platforms are missing out on learning the basic principles of energy, flow and curiosity that then have to be rediscovered when you're 20, 30 or 40. Apparently, Rick Rubin has released a book that is very close to what I'm talking about that has had a big impact on those who have read it."

In recent years, you appear to have been getting out of the studio more. Was that a result of the creative limitations of working solely within a studio environment?

"When we talk about workflow and creative expression, so much of it is about psychology mixed with things that kind of just happen. I'm very curious about enabling creativity in all aspects of my work, so it came naturally to me that I would like to find out how it works in other environments and constellations, whether that's with one other person, an ensemble of acoustic instrumentalists or working with a singer songwriter in genres based on song structure and

composition. Right now, I'm finding that my workflow is hitting the right spot and helping me to avoid patterns that limit my creative flow. I've also come to a strong understanding that there are certain steps that I do with others that are beautiful and enable something that I can't do alone. On the other side, I also love my studio over anything else. It's in nature, 500 metres from my house and I can walk in the beautiful deep forest and have all the tools to sit in there, play around and be a child. I sometimes question why I go away to start these exhausting projects when I already have everything in this beautiful little hut."

For this project with Alex, you both decided to set up your equipment and record at Malmö's Inkonst venue. Why choose that location?

"It's probably the most important and relevant venue for alternative electronic music in Sweden. It has a special soul and I'm very connected to the place, so it was easy for me to reach out to them and ask if Alex and I could spend a week there. We'd already played there several times together and separately and it's also where I recorded my *A Place Called • Inkonst* album, so this was an extension of that process. We put a nice big sofa in a sweet spot at the club so that one of us could lie down and listen to the other jamming. It created a very relaxed approach where neither of us felt that we had to do something – we could just immerse ourselves in whatever the other was playing. Sometimes when you collaborate you feel that you need to find something to do when you're actually just destroying what the other person is doing."

You mentioned earlier that the Inkonst sessions were based on ideas created previously at your studio?

"Yes, the recordings were based on the sounds we'd made back in 2018 and in the weeks before we met up at Inkonst we remixed those sounds separately. That was the part I felt needed to be done by myself in the studio so I could add, tweak, loop, layer, re-pitch and create soundscapes. I asked Alex to do the same from a different room in my studio using some of my sound design gear until we'd created a big sample pool that had tons of soundscapes to take with us to Inkost. We then took some live instruments and recorded different sessions with them at the venue."

What gear did you take to Inkost to continue developing the tracks?

My setup was the same as what I use live, which is more controller-based. Obviously I didn't have access to all my compressors and synths, so it was more about presenting or performing sounds made in the studio combined with a small amount of analogue synths, drum machines and software plugins. I used controllers to arrange, play and modulate the studio soundscapes and then I used a Korg Minilogue, Roland's boutique 101, a TR-8S and BOSS RC-202 for looping. Ableton Push was the centrepiece for playing analogue gear and audio in Ableton, but I also used a Yaeltex custom-made controller for controlling sounds I'd made in the studio. On the software side, I used various stuff from UAD, Roland Cloud, Native Instruments, Arturia and Ableton, which was all mapped and ready because I prefer not to change presets when playing live to avoid any glitches. Alex was also able to control and play samples and soundscapes that we'd created in the studio, but his jams were mostly enhanced using his live modular setup."

"I'VE COME TO AN UNDERSTANDING THAT THERE ARE CERTAIN STEPS THAT I DO WITH OTHERS THAT ARE BEAUTIFUL AND THAT I CAN'T DO ALONE

© Kia Valavaara

Were you responding to each other intuitively?

"Yes, we just pressed record, played and I think we did about 80 takes. Sometimes we did a take alone and sometimes

we started together and one of us would get into a certain flow and play on top of each other's loops. We listened to our jams through the PA system but recorded straight out of our mixer."

From your description, people might expect *That Who Remembers* to sound quite intense and club-oriented, but it's not like that at all…

"There's a logical reason why the album sounds so abstract and that's because when you play alone in a club, or as I did with Alex, you don't feel the need to do so much because even a 909 kick drum sounds aggressive. I've also noticed this when we do workshops, retreats and sensorial exercises, when you start to welcome the subtlety of the world around you and connect to that energy flow, you don't need to trigger too much information and tend to create something that sounds more minimalistic. In a club environment that can be challenging because you face restlessness from the audience and have to come up with quick fixes because they're not as tuned in to your sensorial input, but that's not their fault because it's what they're used to."

In that environment, did you have to resist the temptation to create club-oriented mixes?

"Alex and I talked about that quite a lot and wondered whether we could create a mix as a promotional tool for the album that was different but somehow still connected to it. Eventually, we decided to take parts from other people's music and make some spontaneous edits with sounds mixed from our songs. Doing that at Inkost felt like it might be too complicated, so Alex came down to my studio and we came up with 28 edits of really punchy dance music. It's ironic how those dance mixes were made in my studio yet the album, which is much deeper and more futuristic, was made in a club."

There does seem to be a slight echo to the tracks, denoting that the album was not recorded in a studio…

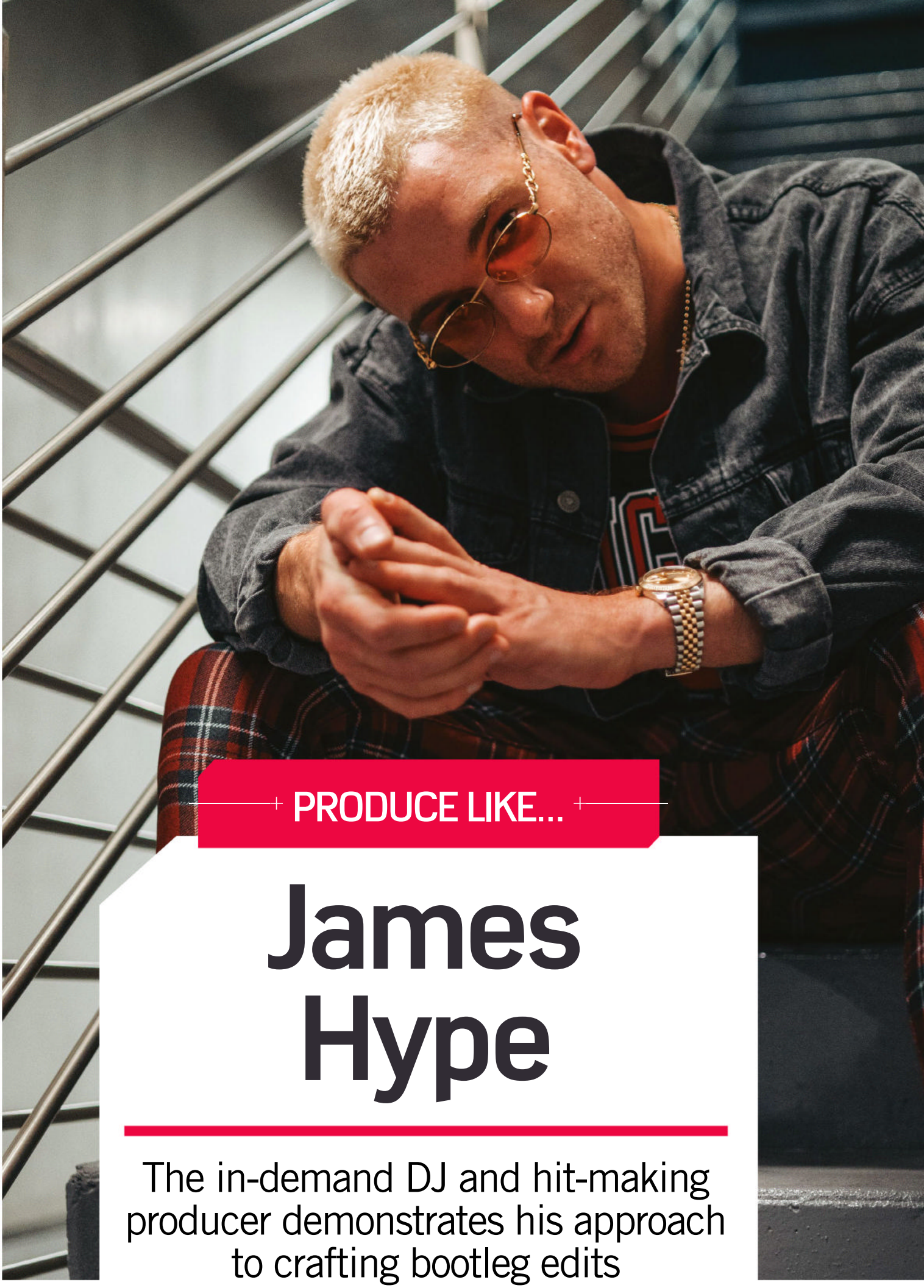
"My motto these days is whatever comes out, comes out. I feel attracted to things that sound warm, imperfect and beautiful in their dusty, misty shape rather than creating clinical and perfect expressions. I want art and music to awaken the life in me rather than distance myself from that."

Once you'd recorded everything with Alex at Inkost, was anything else done to prepare the tracks for release as an album?

"We didn't edit, change or mix anything. What the tracks sound like is exactly how we played them at Inkost, although we did shorten things to make them fit on a vinyl release. We took a deeper and more avant-garde journey than I'd expected, but that's one of the most important aspects of taking a sensorial approach to music-making – you leave your thoughts and expectations in the waiting room and make something that you really wanted to but didn't know it." **FM**

WANT TO KNOW MORE?

The Dorisburg and Sebastian Mullaert album *That Who Remembers* is out now on Spazio Disponibile. For more, visit **sebastianmullaert.bandcamp.com**



PRODUCE LIKE...

James Hype

The in-demand DJ and hit-making producer demonstrates his approach to crafting bootleg edits

INCLUDES VIDEO

Watch our full session from Brighton Music Conference 2023

British producer James Hype has become well known in recent years for his crossover track such as the top 10 singles *Ferrari* and *En Vogue*-inspired *More Than Friends*. He's also an in-demand DJ, regularly touring across the UK, Europe and the US, playing high-profile shows in Ibiza and at festivals like Las Vegas' Electric Daisy Carnival.

A cornerstone of James Hype's career lies in his use of edits, bootlegs and remixes. As a fledgling DJ, he made his name by posting countless hip-hop and R&B edits to SoundCloud and social media. Now as an established artist, his own home-made edits, acapellas and creative sampling of high-profile artists provide a unique and distinctive centrepiece to his sets.

At this year's Brighton Music Conference, James set down with *Future Music* editor-in-chief Si Truss for a live track breakdown, digging into how James went about flipping US rapper Lil Uzi Vert's track, *I Just Wanna Rock*, into a house-style club VIP.

You can watch the full session from BMC in the video found at this issue's download page.

Here are some highlights from that conversation…

Tell us how you started making edits and remixes

"I've been a DJ for 18 years. I DJed for a long, long time before I ever started producing music. I started making mashups and edits of records in Ableton. I started adding extra drums and things like that, and before I knew I was sort of teaching myself how to produce music. That was probably 10 years ago, when I started dabbling in producing. Thanks to publications like yours, you know, I was able to teach myself via the internet.

> "WHEN I HEARD THIS LIL UZI RECORD, IT JUST HAD A CRAZY ENERGY. I WAS OBSESSED WITH IT"

"I was just making edits of other people's records. I was making things for the dancefloor for my own DJ sets. They were like the remix that I'm showing you today – an R&B/hip-hop record that I turned into a house record."

What was the idea behind creating house reworks of hip-hop tracks?

"I'm a big fan of many genres of music, but as someone who became a DJ in Liverpool, it's always been a very house music-orientated city as far as the nightlife was concerned. I was playing in clubs with all the DJs playing house music. I was listening to different genres of music and I was like, 'How can I bring this to my house music DJ set?'.

"I used to remix anything and everything. There was a point very early in my production career where I was making a remix a week and putting it on SoundCloud. And then as I've become more established as an artist, I've done less and less of it. I've just been trying to find those ones that will really hit as opposed to just doing everything. When I heard this Lil Uzi record, it just has a crazy energy and it's insane. I was obsessed with it. And I was like, I have to find a way to make this playable for me as a house DJ."

Where did you get the original material to remix?

"I've managed to find some sort of isolated acapella that someone's made, probably on YouTube. I've also then found the instrumental,

probably off YouTube as well. I've chopped up those parts individually. That would have been the start."

How do you approach editing down what you're going to use?

"I would have loaded the whole thing. I knew it has these chords running throughout that have this epic feeling, like something amazing is gonna happen. There's not too much vocal in this record as well, because I'm trying to make a house track. I'm not trying to use loads and loads of vocals. It's only got like, say, eight bars of vocal line looped over.

"I was looking for that one bit that when everyone hears it, they know it's the Lil Uzi Vert track. I don't want to give them anything that they don't need. I want it to be concise. There's not really verses in the original track, but if there were I'd skip them and just go straight to the chorus."

What did you start with when it came to this Lil Uzi track?

"I started with the chords. They kind of had that feeling that I wanted to capture – it's a very epic thing, and I wanted to capture that epicness. In the track they're kind of legato though, which creates a feeling like, 'Oh, something's coming in'. I needed to create whatever it was that was coming. To do that I turned the chords into stabs."

How do you create a structure for a remix like this?

"I always create around a buildup and a drop. Some 'real house' people probably hate that, because it's not it's not real house or whatever. But for me, I like those moments in a club, you know. So I would have created the build-up with the chords and then I would have moved on to the drop. I always work with a kick and the bass first, because I feel like if you get them sitting together correctly then everything else is easy after that point."

Mix-wise, how do you get these tracks to work in a club?

"It took me a long, long time to learn this, but if you use good sounds, then you don't really have to mix that much. Kick drum is everything in dance music. I used to use the same kick drum on every track, I did it for years. And it was awful. Because kick drums aren't equal, you know. So test out kick drums, the best way to fix a shit track is to change the kick."

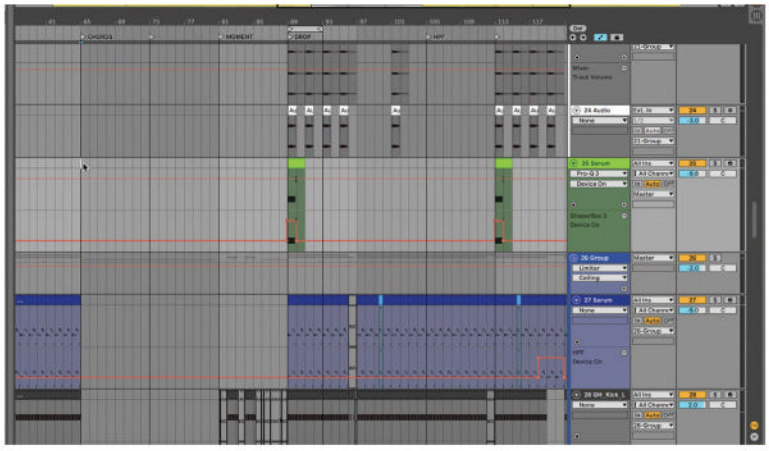
What are the legal restrictions?

"What we're talking about here is a bootleg remix. It's not official and it only exists on underground platforms. It's a SoundCloud remix – this one isn't on Spotify, because the people on Lil Uzi Vert's team didn't ask me to do the remix. It was just something I made for my DJ sets. I can't really put it anywhere, but I can play it wherever I want, I think. Obviously, if the record label had said, 'Hey, James, do you want to remix Lil Uzi Vert's track?', and I said yes, then it would end up on Spotify and Apple Music. But because they didn't ask me, this is just for my private collection."

Tell us about your DJing approach...

"I use CDJ 2000 Nexus 2s and a DJM-900 NXS2. I usually am a big planner, although not always – honestly it kind of depends on how long the set is going to live for. For example, I just got back from EDC in Las Vegas, and I know that my set's going to get millions of views online. So I put a lot of work into it, because I know it's going to live forever on YouTube. I don't want people to be like, 'you played all the same songs'. I have to make sure that it's something special and it's something new and unique to play. The way that I DJ, I use a lot of decks, I play a lot of acapellas and I use a lot of samples. I get very busy. In order for me to do that under pressure, I do have to rehearse, in a way. If the show is something that's not going to be filmed, then I am more inclined to freestyle because I try out new things as opposed to doing rehearsed things. Because I find that more fun, when I'm freestyling."

"I use a lot of loops as well. I have a lot of these one-minute-long demos that I've made – tracks that I've created but not finished – loaded in rekordbox. I'll have an auto-loop at the start and at the end. They're things that I couldn't be bothered to finish, but that I still want to be able to play." FM



STRUCTURING THE EDIT...

"The biggest hurdle with a remix like this is the actual structure. This [Lil Uzi Vert] track's kind of weird because it doesn't really have a chorus. So I had to try to find a way to get a hook in. Things like the chords that I've used to create stabs. That's a hook. And then the vocals are a hook, and then the drop is also sort of a hook. It's about trying to find a way to make them fit together, while also making sure it all feels somewhat like the original record."

WANT TO KNOW MORE?

Keep up with the latest news and dates, and buy the samples used in this edit at: **jameshype.com**

GET THAT SOUND...

Creating percussive chord stabs

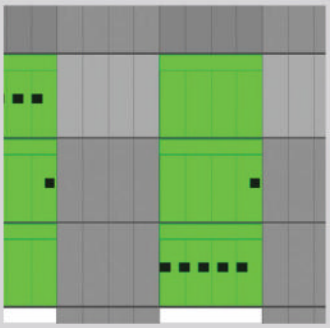
James turns the original track's epic chords into something more rhythmic for the dancefloor

01 >

The original chords in *I Just Wanna Rock* play legato and are fairly epic. To make them into something more dancefloor-friendly, James cuts a chunk out of one and loads it into Ableton Simpler.

02 >

He then creates another track with another Simpler instrument, and cuts the next chord in the original progression to load onto this new track. "I'm kind of using one track for each chord," he explains. This way he keeps the original chord progression but can process each separately.

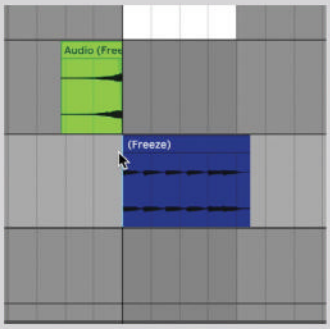


03 >

James then adds a percussive edge to the chords, with the use of some simple synth noise. "I've got Serum playing white noise on top of the chords," he explains. "It kind of hits differently."

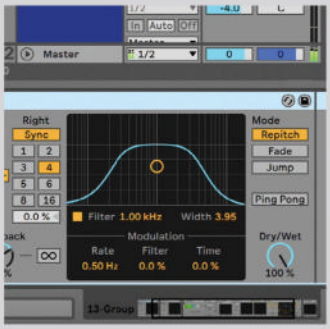
04 >

To add to the dancefloor impact, James has placed a reversed version of the same chord before the riff, leading into the hook. He has a simple sub bass running underneath the chord stabs too.



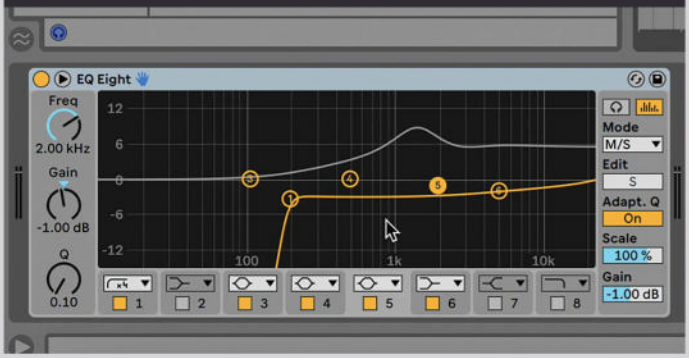
05 >

James has the chords grouped together for processing. He places a delay effect on the group to tie the chords together. "The delay is automated so it fills the gap once the chords stop," he explains.



06

Finally, James applies some mid/side processing in order to make sure the chords don't lose impact. "I was very aware that I didn't want my stabs to be very wide and disappear on a mono club system. With the Ableton EQ, I've taken out a lot of the side and boosted the mid."



ASH WALKER

Fusing a cosmic shower of styles, **Danny Turner** dissects Ash Walker's 'anti-engineering' approach to his latest album, *Astronaut*

© Dan Medhurst

Upon the release of his debut LP *Augmented 7th* in 2015, London-based musician Ash Walker gained recognition from DJs and critics alike for the album's skilfully assembled melting pot of styles. Further albums *Echo Chamber* and *Aquamarine* have since cemented Walker's reputation for eclecticism, underpinned by his deep love of jazz, reggae and dub. This has led to diverse collaborations with the likes of reggae icon Lee "Scratch" Perry and Nikolaj Torp Larsen from two-tone band The Specials.

Strongly influenced by Jamaican mix engineer King Tubby, Walker has referred to his recording technique as "anti-sound engineer" – an approach that couldn't be more evident than on his fourth album, *Astronaut*, where his murky, dub-inflected style has rarely sounded more authentic and immersive. In making the album, Walker developed demos in a variety of locations with a plethora of session musicians and collaborators, including Amp Fiddler and Lamb vocalist Lou Rhodes.

In what way did Philip Glass and Steve Reich's philosophical or compositional approaches make you think differently as a producer?

"I'm very much stuck in my own world and make music in a particular way, but listening to a vast palette of music has definitely had a subliminal influence on my sound. In the case of Steve Reich, I found that his music had a lot of cross rhythms working against each other that somehow pulled together to create something coherent. His work had a lot of unconscious similarities with producers like J Dilla from the perspective of things moving out of time, off the beat and to a place where people might say that something doesn't sound right conventionally. Even though I work within a grid system, I'm fascinated by moving things away from the grid and going against the grain in a way that gives a sense of character and flavour to my music."

You've also mentioned Quincy Jones. Not many could emulate his genius, so is it more about setting a bar and coming as close to that as you can?

"No one in my lifetime will ever be able to emulate Quincy Jones, but you're right in terms of trying to emulate the quality of his productions, level of output and having a hunger to finish as much quality music as possible. I never really want to start making something that I'm not going to finish. Whether I come back to something I've created one week or three years later, I'm forever digging in the vaults to consciously complete or get something to a point where I'm satisfied with it."

From that perspective, nothing is ever wasted…

"Definitely, and that's a massive part of how the new album *Astronaut* was made because it was almost finished in 2020. Going into 2021, having had a whole year to reflect on things due to the pandemic, I wasn't completely happy with the mixes. I started to tweak them and then asked a friend of mine to offer a non-biased view on a lot of the album's frequency spectrums. Towards the end of the year there was a tune that I wasn't happy with and wanted to drop, at which point my manager asked me to record the track *Petrol Head* that I'd always played towards the end of my live sets. I recorded it with the band, replaced the track I wasn't happy with and spent most of last year undertaking a process of 'vinyl finessing'. The album's been pretty slow cooked and you only really know when an album's finished when you can't add or take anything else away from it."

With your previous album, *Aquamarine*, you mentioned wanting to avoid creating something that sounds too perfect. To what extent will you take that?

"If you've got someone playing double bass with one mic at the top, the second at the bridge and you can hear the player breathing and his fingers moving then I feel that's all part of the joy of the recording and don't believe that should be sterilised. You can sit for weeks and months trying to iron out bits of white noise or EQing this and that but, in my opinion, removing that detracts from the vision of how I want things to sound. Sometimes I'll butt heads with the label who tell me there's too much hiss on a track, but that's the whole point."

Does that get you in trouble with mastering engineers?

"I had in-depth chats with the guy who mastered this record for me and he totally got it. If you go back to some of the Motown catalogue and study some of the setups behind how stuff was recorded in the early to mid '60s, you'll discover that they'd often only use one drum kit placed in the far corner of the room with a stereo mic in front of it. Obviously, there's a million ways to record something, but that worked for that setting and style of music. I think a mastering engineer has to embrace the understanding of that and you're both better served if you have an eclectic palette and have listened to stuff from the '50s or something like '70s Nigerian funk, where you can really feel the realness of those recordings."

***Astronaut* seems different to your previous albums in that the tracks are more distinct from each other with more varied styles and tempos…**

"The initial vision behind *Astronaut* was to take it away from the conventional feeling of an album being produced in one coherent listening space or vibe. I wanted to show my diversity and ability to create lots of different soundscapes. Each track is designed to represent an astronaut venturing from planet to planet acquiring and gathering knowledge to bring back to our universe. Philosophically, I guess it's just my way of navigating through the landscape we're all in. I wasn't trying to go too much into the typical perception of an astronaut going into space – I just wanted to create this ethereal journey of sound, full of textures and flavours."

Being on your fourth album, do you now find it easier to enlist the various collaborators you want to work with?

"It's certainly been easier to reach out to people who I love and respect and get some kind of response. Although there's still a world of people who I'd love to pluck up the courage to ask to work with, getting people involved in the project has been a humbling experience. In particular, joining the dots with Lou Rhodes from Lamb was really nice because she hadn't worked on anything for quite a while. When I was just starting to get into programming she was at the height of her career, so it's been cool to work with someone whose music I used to hear on the radio. Working with Lou was actually a turning point in the project because I knew that if I could successfully reach out to her, I could reach out to others."

Who is on your bucket list of people to work with?

"Nile Rodgers and Quincy Jones, obviously, but also people like Sister Nancy, Herbie Hancock and Burning Spear. Coming back around to the younger generation, I'd love to

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"WHEN YOU RECEIVE STEMS, YOU KNOW YOU HAVE TO DO SOMETHING WITH THEM AND THAT CAN FORCE YOU OUT OF YOUR COMFORT ZONE"

work with people like Kiefer and Lauryn Hill, although I don't think that's on the cards anytime soon. Maybe you can join the dots for me *[laughs]*."

Do you have a preferred startpoint for creating a track?
"There are umpteen ways to get the mind clicking. Sometimes a vocal might inspire me or I'll play a short, sharp chord and time-stretch it using PaulStretch to create a sound bed to start from. Other times I'll just listen to a reference track and think, shit man, how did so and so invert those chords 15 times in two bars to get all these different chords that sound completely different? Without going into microtones, gamelan or Eastern scales, that stuff is often the most inspiring launching point for me, but there's no guaranteed way to start the process."

As a bassist, is that the first instrument you pick up?
"Either bass or keys, but I also like to start by getting a beat together or hearing a chord progression and trying to either work it out or play it myself – usually badly! I draw inspiration from many, but rather than plagiarise or copy, I'll look to embrace my own mistakes so the end result sounds my own. Most of that's done in my home studio, but there are a couple of other studios where I'll turn up with my bass and a suitcase piano and throw myself in at the deep end."

When collaborating, presumably there are times when things don't go as you'd have hoped. In those cases, will you feel obliged to force something out of those sessions?
"Everything has its use and as I said earlier I often end up revisiting things. Sometimes shelving a session and coming back to it is what was needed because you see things in a completely different way at different points in your life depending on your mood. It's funny how things work out but for the track *Afronaut*, I had the drums exactly how I wanted and then my drummer, Kwame Ambrose, said 'I really wanna smash something out today', and started mucking around. I subconsciously left the tape on record and he did this mad, slappy Dilla-inspired drum part at the end of the track. That element brought it to Amp Fiddler's attention and inspired him to progress the track, so there's always a benefit to creating happy accidents."

***Afronaut* is a disconcerting track as it almost sounds like a mashup. Was that the feel you aimed for and how did you brief Amp Fiddler?**
"It's certainly got that flavour to it. At first, my manager called and said, 'Joseph doesn't like the track… he loves it' *[laughs]*. Without revealing too much to him, I gave him some information on what the project was about but it seems like we have some sort of telepathy thing going on. He said, 'Bro, this is what you're going to get and you're going to like it', and in the end he nailed it like he'd read my mind. Initially, Rhodes keys, guitar and drums were driving the track, but when Joseph sent the vocal back, I knew I had to elaborate and sculpt *Afronaut* into this beast with mad, layered vocals on the hooks."

Do you have to treat a track differently if it's been recorded remotely and sent as stems?
"Being the interfering person that I am, I like to be in the room with everyone but Amp Fiddler was in Detroit, Denitia was in New York and Sly5thAve was in Mexico. I was also talking to Patrick Watson, the lead singer of Cinematic Orchestra, about working on a track, but he was in Canada and schedules couldn't align. When you're not with an artist in person, you do have questions in the back of your head, like what mic are they using, where are they standing in relation to it, the room they're recording in and what mood they might be in on that particular day. When you receive the stems, you know you have to do something with them and that can force you out of your comfort zone, but sometimes you don't want to be in a room with someone who's recording a vocal and have to look them in the eye and tell them to press stop or go again. I know from experience that when you're put on the spot like that, you can get self-conscious and would rather have your own privacy. That especially happens when you want to do your best for someone – if you're conscious of fucking up, you'll probably fuck up."

Can you tell us about some of the other collaborators on *Astronaut* and where you went to record with them?

AUREX
75

"Working on the track *Petrol Head* was probably the most fun experience. I took my band to RAK Studios in St John's Wood, which was great because they've got a whole world of stuff like a B3 Hammond, a 1973 Rhodes Mark 1 and lots of other bits and pieces of vintage gear kicking around. Its location is really unassuming, but it's amazing how much history and gear they've got and how many famous people have recorded there. Another highlight was working at Titan Studios in Wandsworth, which is run by a friend of mine. He's got an SSL desk with all these beautiful Neve channel strips and a Moog Voyager. I'm not a keys player, but he's fire and would often jump in and play parts."

Where did you go to record drums?

"My friend Max has a really humble little studio in Walthamstow with a decent kit and some beautiful mics that allowed me to get the exact sound I wanted. Once I've recorded drums, I'll always overdrive and crush the shit out of them to add that little bit of extra sauce. I'm definitely not a drummer, but I'm a sucker for programming drums, so some of the beats on tracks like *Automaton* and *Detroit Velvet Smooth* were programmed and then I played individual hits and layered them, sped them up or slowed them down."

As a fan of King Tubby and dub, what tricks do you use to get depth and reverberation into bass frequencies?

"I've always been a massive fan of dub – it's a style of music that's been in my family for a long time. I discovered King Tubby in my teenage years and was fascinated at how you could make a song without vocals and just have the bassline as the lead. Being a bass player, making bass the focus of the track has always fascinated me aside from dub's influence on disco and dance music. I got mad lucky to link up with Scientist who trained under King Tubby and in 2018 we became thick as thieves. I learned so much from chatting to him about production and engineering. I'd always be asking him what it was like to work with King Tubby, and he'd say, 'Listen Ash, it was like going out on a boat to the middle of the sea, getting pushed in and told to swim whether you could or not'. I'd say, 'So it was fun?' and he'd say, 'No, not fun. It was hard… and stressful'. Alright, cool *[laughs]*."

What other tips did you pick up from Scientist?

"Little things, for example, people put a mic in front of the bass amp or they'll DI a bass and plug it into the decks, but all of these old dub records were miked in front of a bass amp with a line out too, so you got stereo bass, which gave you the option of having an extra channel beneath the mono bass."

Is that something you employ on your own tracks?

"If I'm in Logic I'll have a separate bass amp channel to give that extra punch with all the tops rolled off and sometimes I'll direction mix it so both channels are coming out centrally. Some people say they never put reverb on bass, but they obviously didn't listen to a lot of dub records, so I might put a touch of reverb on just to make you feel like you're in the room with it and I don't compress because I feel like that can constrain the frequency range. Sometimes I'll add a sub enhancer to boost the low end, use an R-Bass plugin to hone in or boost a frequency without using an EQ or just cut everything off the top end altogether, make another channel and bring a channel back in just for the high end so you can

"ONCE I'VE RECORDED DRUMS, I'LL ALWAYS OVERDRIVE AND CRUSH THE SHIT OUT OF THEM TO ADD THAT LITTLE BIT OF EXTRA SAUCE"

hear a bass player's fingers moving around. It really depends on what I'm doing, but I'm not afraid to have two or three bass channels doing different things at the same time."

What enchants you about recording to tape or using spring reverbs?

"I just like the character you can get from using old tape delays like the Space Echo and Echo Chamber. The latter's got this old Japanese tape cartridge that's not been changed since the early '70s. It's weird, but sometimes if you leave the repeat up you can hear some old stuff going round on the tape and there's so much wow, flutter, dirt and grit on it that adds to the character. I'm quite free and loose about using that stuff or a spring reverb, and will leave well alone when it comes to mixing even though I've always battled with my label about that. They'll say, 'There's too much reverb on the vocal!'. Yeah, but have you ever listened to Johnny Clarke? It sounds like he recorded it in the toilet in a basement with a microphone at the other end of the corridor *[laughs]*."

Most use those elements as an effect, but for you those principles seem to be totally integral to your sound?

"I like these elements to be brought to the forefront and for it to be made apparent that they're a massive influence in how I shape sound. Once I've built other stuff around it, more of it might get delayed or I'll add another spring reverb. The most used effects in all of my productions are spring reverbs, tape delays and EQ. When I use a physical delay, I'll record it in on-the-fly because it gives the sound more of a live feel. For example, if you have a drum line playing through a track in a way that's quite straight, I'll record a delay channel on the hi-hats and constantly move the delay in different ways to give the beats a more diverse feel."

What gear do you use to achieve those results?

"More often than not I'll turn to outboard hardware because being hands-on gives the sound a more distinctive flavour. If I use internal delays, I'll lean towards guitar pedal tape delay-type plugins because they have more character than the basic Logic tape delay, which can sound a bit nasally and digital. You can't really replicate the wow and flutter of an Echo Chamber. In certain settings, even a RE-201 Space Echo sounds too clean compared to that bad boy. I've also got a Great British Spring dual channel reverb, which is basically like a long poster tube with a spring inside and it's pretty rambunctious. Things like that and plate reverbs really fascinate me."

Will a band be realising the album on-stage?

"My band plays all the parts and I've got a singer in Laville who can sing almost anything I throw at him. He's done vocals on a bunch of tracks on this album and my previous one and, funnily enough, I'm producing his next album so we're pretty much seasoned to each other's catalogues. Otherwise, if there's trombone on a track, maybe we'll replace that with saxophone, so our live setup is malleable."

Are you playing bass live?

"I have someone else doing that. I play synths and bring an Akai MPC to throw in different samples and start building the beat live. I've got a mixing desk, a Space Echo and a dub siren, so when we go into the dub side I can add that stuff or bring a spring reverb on the snare and hi-hats to give everything that King Tubby flavour. Everything's coming through the desk, so I can add delay as needed and do some singing and spoken word vocals. We're doing a launch gig at the BBE record store in Hackney at the end of June, where we'll have lots of visuals and fragrances."

Did you say fragrances?

"I have a friend who's one of the few black perfumers in the game and he's done a special formula for a scent that comes with the album. It's called Deep Space and gives off a scent of lavender and other musky scents to suit the colour palette of the album. I think it's nice to have something tangible to show for your money." FM

WANT TO KNOW MORE?

Astronaut is out now on Late Night Tales. For more information, visit **ashwalker.bandcamp.com**

Bus processing

Get more out of your mix by processing in groups, and discover pre-master strategies for your master bus

Signal routing gives engineers and producers a lot of convenience. Mixing desks and studio wiring are – usually, at least – meant to facilitate options. From this expanse of choices, the art and trade of music production has developed a wide variety of strategies for getting the job done – some are useful in certain contexts, others useful in other situations; some have become de rigueur and trusted, while others have fallen out of favour. Others have simply gone obsolete as technology has improved.

It's with these options in mind that we approach this article. You may have become stuck in a rut with your processing and mixing strategies, you may have just been sticking to the default DAW options, or you could have never known there was another way to do things. In this specific case, we're going to take a look at bus processing, shining a light on its advantages and how it can shake up your workflow.

What is bus processing?

It's when we take a number of tracks and apply the same processing to them all in single channel as a group. A common bus processing tactic that you've probably used is the drum group – processing all your drums on a single output channel to make the entire group more cohesive as a unit. Another regular use of bus processing that you've definitely used? Your mixer's master output channel. You may have thrown plugins on here for analysis, mastering, or what you hoped would be a reasonable approximation of mastering. We'll cover this too, distinguishing pre-master bus processing from actual mastering, and explaining how pre-master processing may help.

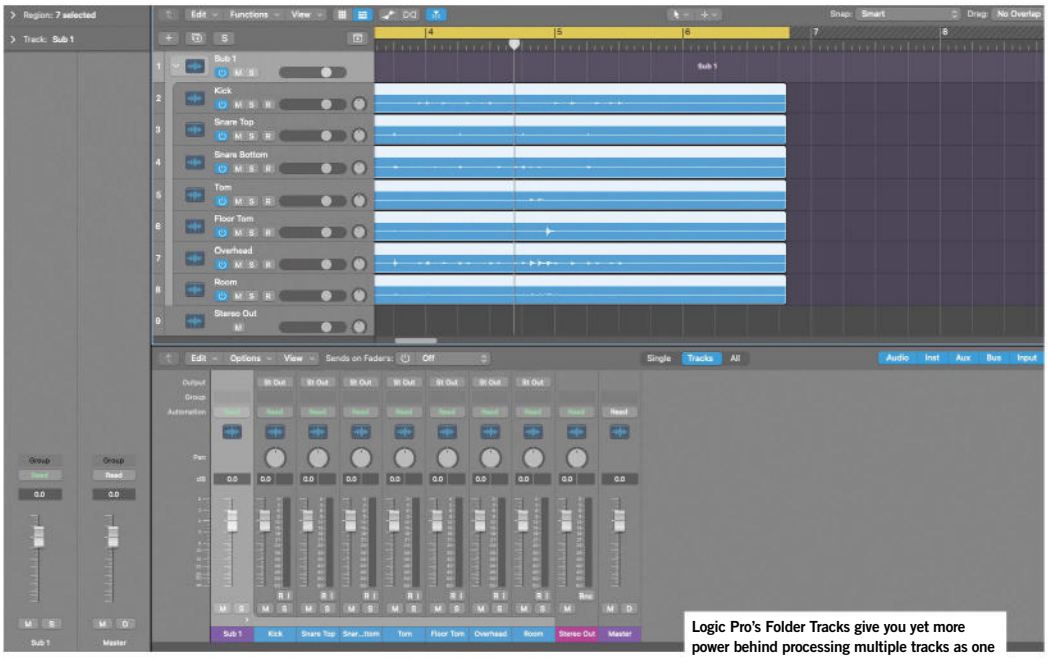
There are more illuminating tactics behind bus processing that could be fertile ground for ideas when approaching your next mix. We'll show you some strategies for how – and why – you'd apply bus processing to parts of your project that aren't just drums or the whole entire row of channels in your project. And we'll show you how to ensure you're setting it up right, plus a few variations offered by modern DAWs.

Circuit secrets

Beyond the analogue mixing desk workflow, if these techniques are facilitated by real-life consoles, what processing tactics could be revealed by modern DAWs with their enlarged signal flow and routing options?

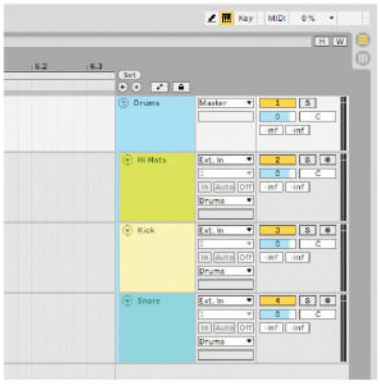
We're thinking of features like Logic Pro's Folder Tracks, and Studio One's channel editor, which lets you split off your own signal forks within the insert signal chain. And then there are options like Bitwig, with its flexible modulation across a channel and 'The Grid'. And how about Tracktion Waveform's infinitely routable mixer, with sends from anywhere to anywhere?

If you use any of that to build entirely custom mixing chains, and not only will it change the way you use a DAW – it'll change the way you mix, full stop!

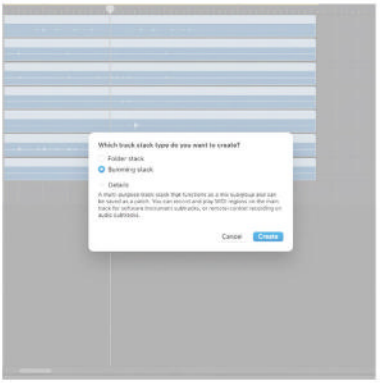


Logic Pro's Folder Tracks give you yet more power behind processing multiple tracks as one

Setting up groups and busses in four major DAWs



1 Ableton Live has a very simple workflow for creating groups. Select the tracks you wish to add to the group and press Cmd-G on Mac or Ctrl-G on Windows. You can add more tracks to the group by dragging and dropping the track onto the group.



2 Logic Pro X is slightly more complicated. Apple refer to groups as "Track Stacks", to create a track stack press Shift-Cmd-D. Logic will present two option: a Folder Stack or a Summing Stack.

3 In most instances, selecting Summing Stack is the preferable option. Folder Stacks do not allow group processing, instead you can simply alter the volume or mute and solo the group – it's more for organisational purposes.

4 In Bitwig Studio, add a new Group track to the mixer or arrange page (Cmd/Ctrl-Shift-G). Select the tracks you want to put into that group, and drag them onto the newly created Group track. You'll have to open its 'folder' to see them all in there.

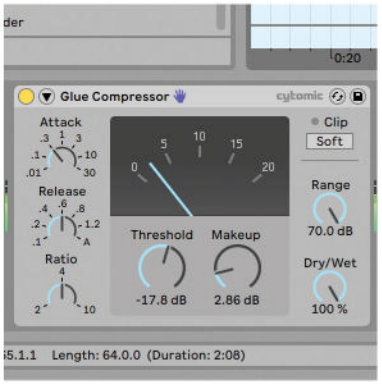
5 Studio One has two ways to work with groups. After selecting your channels and right-clicking, you can "Add Bus for Selected Channels". This creates a new channel in the mixer that the other channels flow through.

6 The other Studio One option is to "Add VCA to Selected Channels". A less comprehensive channel appears at the end of the mixer. VCA Channel can't host effects, but its red fader controls nested channels while keeping gains relative.

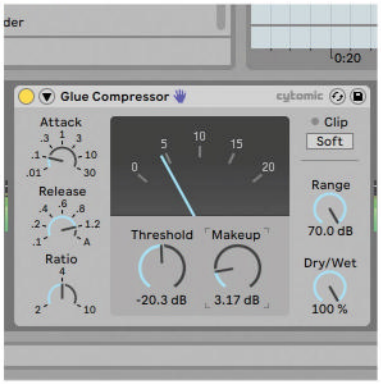
Gluing elements on a drum bus

1 Here's a drum kit with the usual, time-honoured members in tow. We've added the source to download and listen to with this issue's files. We're going to take this group and apply processing to make it more cohesive, more 'glued'.

2 What better way to start than by grouping all of the tracks and adding Ableton's Glue Compressor device? It's specifically made for this purpose, and so you'll notice its settings offer only a few options – it knows why you're here.



3 We'll start with a Ratio of 4, a slightly quick Attack and a medium Release. We bring the Threshold down to just start tickling the gain reduction. This makes the groove pop and its elements sway in time. Audio included.



4 We now get a little harder with things, dialling in an even quicker Attack and making the Release last longer. We've also brought the Threshold down for a heavier take. This is more glued, but at what point it gets too 'pumpy' is up to you.

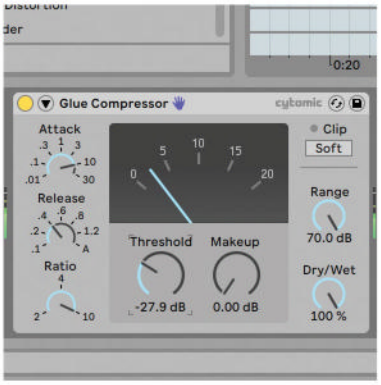
WHAT IS 'GLUE'?

Psychoacoustics teaches us that our brains are constantly analysing different sounds and grouping them together as 'things'. Since we can't shut our ears, we have to pick out environmental sounds, ambience, things we can hear but should ignore, and things we want to concentrate on.

Every bit of sound has to be identified as being part of 'something', and there are some factors that determine what makes two elements of sound appear to be coming from the same source. In addition to direction and tuning, one of these things is whether two elements of sound modulate and move together. By introducing compression, we're making everything shake its dynamics together, making everything sound more cohesive, like one single 'thing'. No matter if the hi-hats didn't trigger your threshold – they'll be ducked all the same. This is the real route of what's happening when we talk about the elusive glue.

Taking care of transients on the drum bus

1 Here's another way to treat your transients on the drum buss. Glue Compressor is back on, but this time we'll take another approach to the group's dynamics, not going for glue necessarily.



2 This time, we'll dial in a harder Threshold and higher Ratio, attempting to carve a bigger chunk out of our drums when the transients hit. But we don't want to compress the transients themselves, so we'll set a longer Attack time.

3 Here we go at it again using Pulsar 1178. This is the sort of flavour we can achieve by dialling in heavy compression from an analogue-style compressor, yet leaving the Attack time to dawdle, letting those transients really snap through.

Ways to process in groups

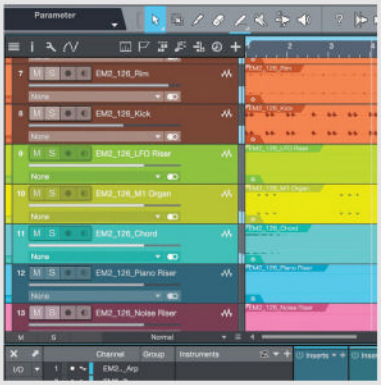
Group and bus processing gives you free rein to process multiple things through one output, but what 'things' should you lump together? Remember, this is music, so there's no one strict set of answers, but there are a few ways to think about things, depending on the outcomes you want to achieve. We've looked at drum bus processing already, but that's not the only way to slice your percussion. How about splitting them into low and high percussive elements, or putting the crashes onto the FX bus for processing? What about leaving the kick out altogether?

Let's consider vocals now. Whether your track is constituted by vocal effects and chops, or if you've got a ream of backing vocals or harmonies, those are two ways to categorise your elements and fit them into busses accordingly. You may choose to process a backing vocal bus a little differently to the lead vocals, for example reducing higher frequencies to clamp down on sibilance or increase intelligibility when multiple takes of the same lyrics are sung.

YOU CAN EASILY BUS 'WIDE' AND 'NARROW' OR 'MID' AND 'SIDES' ELEMENTS ON THEIR OWN

You don't have to group for frequency content or similarity, either. You could quite easily bus 'wide' and 'narrow' or 'mid' and 'sides' elements to their own busses, treating different ones in a different way. That processing may include different EQ and compression strategies, or any other creative effects. Let's have a look at the different ways to slice your busses and groups.

Group processing strategies



1 Here we've got a track containing three 'keys'-based elements. There's an M1 Organ sound, a piano 'Chords' channel, and a 'Piano Riser'. They're a good candidate for grouping, depending on the processing we're looking to do to them.

2 For example, we could add stereo width to all the keys sounds together, giving them a similar effect. Reverb added in a similar way will bring the presence of all the keys into the same 'space', and some parallel compression will add weight.

3 This track is synth-heavy, and there's also a Rhodes in there doing its thing… but it's so heavily processed, it would fit well with the synths too. Let's pop them all into a single group for the mixing stage.

4 On the group, we'll add reverb with a small but rhythmic pre-delay, making every synth ring out in time with the track. We'll also add some saturation to all of the keys together, giving them a bit of a healthy clipping when they get too hot.

5 On this track, we've ended up with three separate effects channels, each operating as a reverb return. Well, we can actually group those returns and apply processing to them all together. Why would we want to?

6 By sending each effect channel to the same bus before that bus is output, we can add stereo effects to widen/narrow all reverb, compression to smooth transients, and even modulation effects to swash out all reverbs at once.

Pre-master processing

1 There are some tactics we can take on our master bus to create better mixes. But these aren't mastering processes: here's the deal with pre-mastering processing and how to implement it.

2 For a pre-master, we're looking to apply things to the whole track, but unlike what a mastering engineer would add, the processes are more creative and stylistically driven. For example, here's an Exciter doing its thing on the whole mix.

3 Width is a clear master-capable processor too. With an Imager, we can boost the whole mix, or make a multiband split to narrow the bass and/or widen the mids and highs. For the pre-master, we could also automate the width to change through the whole track.

4 Another thing we could change through automation is the setup of high- and low-pass filters – or even the strength of an entire EQ curve – as the track moves through its sections.

5 On another EQ tip, making minor adjustments to tonal balance is often the territory of a mastering engineer, but if they're firmly in the root of the creative, they can arguably be a pre-master process. Using a nice analogue EQ, we can do this easily.

6 Clipping and distortion: now there's a debatable pre-master process. But in our opinion, if the process is added for flavour and character – as we're doing here using Decapitator – then it's fair game as a 'creative' mix bus process.

7 It's time for some glue again! But while a mastering engineer might apply quick, light compression or even multiband compression, we're going to get more creative and wide-ranging with our glue compression.

8 We have to watch it, but with a quickish attack and a slightly slower release, and going easy on the Ratio, adding some dry signal back in, we can provide some weight to the whole track that a mastering engineer might be scared to.

POWER TIP

Adding colour is a great – maybe obvious – pre-mastering process you may know already. Maybe you're using vintage flavour processing on your master output channel, or even a full-on lo-fi process like cassette simulation. This is exactly the kind of stylistic 'colouring' decision that a mastering engineer shouldn't be making on your track. But you the producer, who sets the vibes, can have the liberty to do it yourself.

THREE OF THE BEST

SSL Bus Compressor 2 £263.99

1 With a £250+ price tag, SSL's celebrated bus compressor may seem simplistic, but what you're paying for isn't an extensive feature list, it's that authentic analogue sound heard across hit records since the '70s; originally in SSL's hardware desks, now in digital form.

solidstatelogic.com

Waves Abbey Road Saturator $199

2 Designed with the team at the world's most legendary recording studio, Abbey Road Saturator from Waves provides authentic analogue saturation – perfect for sticking on a group or master channel for instant warmth and drive. Choose between the REDD console's tube sound, or the TG12345's rounder tone.

waves.com

UAD Precision K-Stereo Ambience Recovery £199

3 This stereo imaging weapon from UA will open the stereo image of any sub group or mix when placed on a group or master bus. Designed alongside Bob Katz, Precision K-Stereo lets you dial in your stereo image without any nasty artefacts.

uaudio.com

Saturation: pre-master or master processing?

1 Let's use saturation on the master channel of our project to get more 'oomph' out of our track as it stands. Is this the preserve of the mastering engineer, or a mixing decision? It's arguable.

2 Using Native Instruments Supercharger GT, and keeping its Compressor out of the ring, we can add 'Mild' saturation that swells the sound. Average level is increased in a pleasant way, but we're not clipping or scalping transients exactly.

3 Using clipping distortion like Soundtoys Decapitator, however, we're starting to reduce dynamic range on purpose, almost limiting those transients. The character introduced would be too racy for a mastering process, though.

4 What if we use a saturator that clips the signal based on the spectral profile of what's going through it? Here's Newfangled Audio Saturate. Whether it's a mastering or a pre-master process, it can all depend on the results of the effect.

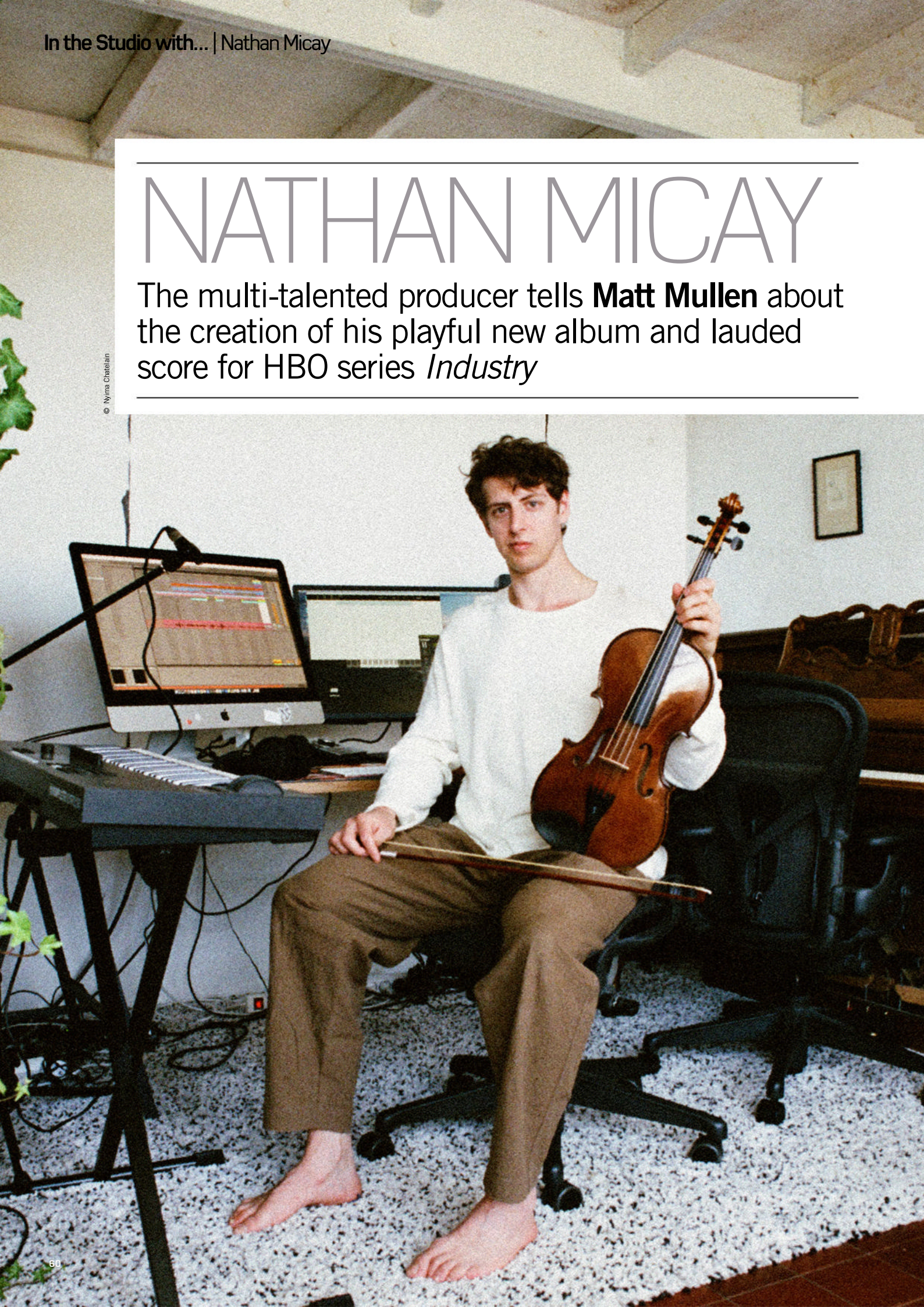
New signal adventures

If these explorations of bus processing can give you a step up or a new twist on your workflow, then we've done our job. There's one more strategy it's worth mentioning before we go barreling off into bus processing though: parallel processing is something you may know from parallel compression, but the idea can be applied more widely as well.

By setting up all processing for any given channel on a parallel channel, and blending between the two, you can get a high degree of control over your mix decisions. Increasing or decreasing the processing on one channel is as simple as rebalancing the faders, rather than tweaking individual plugins. When applied alongside bus processing, you can get even more mix flexibility. FM

NATHAN MICAY

The multi-talented producer tells **Matt Mullen** about the creation of his playful new album and lauded score for HBO series *Industry*



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Electronic music can be a serious place. Between techno's ominous thump and EDM's sweaty braggadocio, it's easy to lose sight of the fact that, essentially, we're all just here to have fun. Sure, electronic music is art, and it's also how some of us make a living. But if we cast our minds back to remember the reason we opened up a DAW or picked up a synth in the first place, it's the sheer joy that's sparked by making and rearranging sounds, and the promise of where that could lead, that got most of us hooked.

Nathan Micay's music bottles that feeling and amplifies it to the nth degree. After debuting in 2012 under the alias Bwana, Micay began working under his own name in 2018, releasing a pair of albums for Scottish imprint LUCKYME and scoring the critically acclaimed HBO drama *Industry*. The producer's latest release, *To The God Named Dream*, brings a much-needed sense of optimism and a touch of humour to a genre that's often guilty of taking itself a little too seriously. Aesthetically considered but joyfully unpretentious, the record mashes up a cacophony of sounds and influences into eleven riotous tracks that expose the old adage 'less is more' for the lie that it really is.

In Micay's world, more is in fact more, and these songs are all the better for it. Synths are stacked sky-high as stadium-sized melodies soar across the stereo field, trailing a shimmering tail of reverb and delay in their wake. In the same track, you'll hear trance synths, 808s and breakbeats happily coexist with live banjo, Nickelodeon cartoon samples, gated Motown vocal hooks and '90s vinyl scratches: emerging from this blissful chaos is the undeniable feeling that both we and Micay are having a damn good time.

> "I'M NOT MUCH OF A GEARHEAD, BUT I'M A HUGE KONTAKT LIBRARY, OBSCURE PLUGIN HEAD. THAT'S WHERE ALL MY GOODNESS COMES FROM"

We caught up with Micay from his home studio in Copenhagen to find out more about how Taylor Swift, obscure Kontakt libraries and soft synth preset-tweaking inspired the making of his latest album.

How did you first get involved with electronic music-making?

"I've always worked on music myself, but not with the goal of making it as a musician. During high school I'd use GarageBand and make these four-channel bluegrass recordings. I was really into bluegrass at the time, and I can play banjo, fiddle, mandolin and guitar. I used to make these terrible-sounding recordings. I used the microphone on a Mac from 2007, so you can imagine how rough it sounded. You could probably hear my family talking in the background.

"That was my first foray into music production, and the idea of actually recording anything, but I started to take it more seriously around 2011. I was in university and I just hated the school I went to, it was very party-driven. I was really into dubstep and post-dubstep and that whole thing. I just started making some songs and putting them on SoundCloud. I would make one song per week – every Sunday I'd put up a new song. After about eight months of doing that, two of my songs kind of blew up and I just went with it from there. It's been a touch and go process ever since, but now I'm in a place where I'm pretty confident making music."

We're told you set up a studio space out in Copenhagen following the pandemic. Could you talk us through it?

"Building a studio is a bit of a stretch! My girlfriend is Danish, so we moved out here and I was lucky enough to find a place through a friend. So I've been working in this space since then. My setup hasn't really changed since Berlin. I'm still very much in the box, although now with score work, I'm more and more using guitar and violin and viola. But yeah, it's pretty much the same. I've got myself a nifty big old keyboard now, which I didn't have in Berlin. So that's pretty nice. For all of my previous albums and score work, all I had was the A to the L keys on my Apple keyboard. That's how I'd write a lot of my melodies. So that's really been the biggest change. I'm not much of a gearhead, but I'm a huge Kontakt library, obscure plugin head. That's where all my goodness comes from."

Could you talk us through one or two of the musical influences behind the record? We're told pop was a big influence this time around.

"I'm a huge Swifty. Without any irony, I've been a big fan of Taylor Swift since I was in grade nine. I'm always a huge fan of anyone who can have interesting melodic performances with the voice. Caroline Polachek, I got really into during the pandemic, and she just takes things to a new level. Just the falsettos, and the way she's able to sound like she's using Auto-Tune, but she's not.

"Also, I got really into this whole trend right now of interesting vocal distortion and interesting vocal processing. During the pandemic, my roommate was working for Native Instruments, which I think acquired iZotope during the pandemic, so I started getting iZotope stuff for free, essentially. That was very fun to play around with.

"Those were huge influences. I also just started going back through '80s pop music. It's so exuberant and regal. That whole era – maybe not '80s, more like early '90s – with these big music videos and big production. William Orbit starting to come into the picture with Madonna, particularly – that whole era I think is so cool. There's just no rules about anything, it's just like… let's get thrash guitars over a big beat! I love that. With this album, I tried to take the approach of less is not more, let's go for it. If I can make ten different weird sounds work together, that's awesome."

Which iZotope plugins were you using?

"I think it's called RX 8. It's this amazing plugin where you can isolate things. As I said, I made a lot of this record on the kitchen table, so from a purely practical standpoint, that helped me isolate things that I was trying to record, if you could hear a lot of other stuff in the background. I used their distortion too, Trash. But another one that I used even more than all the iZotope stuff was Soundtoys: Decapitator and Devil-Loc are pretty much on every channel.

"It's funny – while I was making them, I would use that, then I'd send them off to Michael at Studio Moonchord, who

mixed the record. Then he would replace them with the real outboard gear that those plugins are built on. So it was this funny thing where I'd be tinkering for hours trying to make something just right, then I send it to him and he would delete all of my plugins and everything I'd done. I would send him the WAV file of the original processing on my end, and he would replicate it with his own stuff, which I think is part of the reason why it took so long, but obviously it would sound better.

"At the end of *Fangs* there's this huge, digital bitcrushed and distorted synth that comes in and he completely re-recorded that through his outboard gear. I don't know what he used, but it was crazy – it had so much more depth and sounded so much cooler."

Synths are a huge element of your sound. You're a big fan of soft synths, right?

"I'm only using soft synths. I almost bought a Moog One during the pandemic. Because we were all at home and it seemed like, why not? I watched the Oneohtrix Point Never video about it, with him using it on *Uncut Gems* and I was like, 'do I really need this?' Maybe one day.

"At the moment, for synthesisers, u-he Diva is pretty much my go-to. It's all over this album. But then there's all these niche synths I've been buying on Kontakt that I've become obsessed with. There's this one brand, Karanyi Sounds. It's just one of many small Kontakt library makers. That one makes some really great vintage-sounding synth libraries. But as far as my workhorse, Diva is still the one."

Can you tell us about any more niche plugins you've discovered?

"For a lot of organic sounds, I use this website called Pianobook. There's probably like 2,000, 3,000 free Kontakt libraries on there. Some of them are god awful, but some of them are actually pretty cool. A lot of them are very basic, like, 'here's 20 notes on some junk guitar I have, but you can use them as a starting point'. They sound pretty cool once you process them with some reverb or whatever else. I've got a huge collection of those.

"Then I've got all these weird synth plugins that I've bought. Slate + Ash, I'm obsessed with them. They're also all over the album. They're a developer duo from Bristol – it's by far the coolest stuff out right now for Kontakt. They only have three libraries, but every time they put one out, I jump at it. I used a ton of this library called AURAS. It's made to work with MPE, but I don't have any of that stuff, so I actually just go in and I automate it myself. I love that stuff.

"I've got this other one, the Atelier Series, from a company called Musical Sampling. They have these vocal sample libraries called Maggie, Amy and Fauxgorian. They're the most realistic-sounding vocals you'll ever hear. I just finished a score for a new film that's coming out on HBO and at the end there's a big vocal number, and they asked me, 'who do we have to credit for this'? I just said 'oh no… it's a Kontakt library' – but it sounds unbelievably real. There are unbelievable legatos and control on the vocal. That's one of my secret ones I tell a lot of my friends about.

Many of Micay's virtual effects were replaced by analogue hardware when the album was mixed

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"IRONICALLY, AS I'VE ENTERED CINEMATIC MUSIC AS A PROFESSION, THEY ACTUALLY DON'T WANT WHAT WE WOULD CALL 'CINEMATIC' ANY MORE"

"I've got tons of these tiny little Kontakt libraries. I decided that I could buy a Moog One for 6,000 euros, or however much it is, or I could buy 200 of these little niche things for 30 euros each. Some of them are terrible – I'll usually just buy them if it's under 30 euros and it looks cool."

When it comes to designing patches on synths like Diva, are you building sounds from scratch or tweaking presets?

"I'm tweaking presets. It's funny, when I first started, I used to think sampling was cheating, and I used to think presets were cheating. Then I watched that famous video of Legowelt, where he goes around his apartment showing his collection of synths [find it on our YouTube channel]. Then, once he started to give out these sample packs of presets from those synths, then I heard all those samples in Four Tet songs, I was like… it's not cheating at all! Nobody cares.

"I'll take a preset from Diva and I'll usually process it or I'll make some chain. I like building chains from the ground up, I don't like building sounds from the ground up. Although I guess you could argue that a chain creates a new sound anyway. I don't have time to build a sound within the synth, I like to just go through the presets, then I'll find something and then be like, that's cool. I can visualise very quickly when I hear a preset in a synth, or even in a string library or something, how I can take it from that sound to the next one. I'm good at doing that. But if you sat me down in a synthesiser store and gave me some Oberheim synth and said alright, programme this, it would take me a while."

Can you talk us through some of the samples found on the new record?

"Every track has more samples than I can remember. One of the big things I started doing on *Blue Spring*, that I've continued to do with this album – it's kind of a cornerstone of a lot of my productions – is that I'll go on these YouTube channels that are dedicated to old library music that nobody can find, and I'll just go through that. A lot of them I can't buy because either they're 300 euros a record or they just don't exist any more. So I'll just convert the YouTube to an mp3 and bury it in the mix. But a lot of it is just so cool and textured. I couldn't tell you the name of half of these records, but it's all old library music."

Did you experiment with any new production techniques or processes on the new album?

"One thing that was huge for me: I'd take some big record that doesn't really have any decipherable main melody, and I would just drop the audio in and convert to MIDI in Ableton. Then you'd have to be like an investigator or an archaeologist and find the melody among this clutter of MIDI notes. I would drag my mouse through the MIDI notes, and you'd find the ones that sounded cool together, delete everything else then rearrange those into these bizarre melodies. Some of the melodies on the album, I don't think any human could have come up with on their own."

Tracks like *The Death of FOMO* have quite a cinematic vibe. Has your experience writing for television and film influenced how you approached your solo work?

"Well, it hasn't made things more cinematic, because ironically, as I've entered cinematic music as a profession, they actually don't want what we would call 'cinematic' any more. I think they want music that's very tailored for specific sounds and emotions and scenes. Whereas in electronic music, we'll listen to something and be like 'that's cinematic!' and for us, cinematic means grandeur, and huge, and expansive, but that is not in my experience what people want, at least in my scoring career so far.

"But it has made me have much better quality control and helped me with the ability to be concise. The tracks on this album are much shorter than a typical electronic music release. A lot of the ideas don't even last for 20 seconds at a time. That comes from scoring, where you have to cut, cut, cut, and everything's moving from one scene to the next scene to the next scene.

"A lot of these tracks are so disjointed, in particular, *Don't Want To Say Goodbye*, nothing on that track lasts for more than 15 seconds – every motif is so quick. I'm trying to find ways in which you can take a theme or motif and then bring it back 40 seconds later in a totally new context, but it's still recognisable. That's something that's very common with scoring work."

Your score for *Industry* featured some really impressive synth sounds. Were those all soft synths also?

"That's all Diva, pretty much. Arturia Pigments, too, I used that a lot. For strings, it's also a lot of Spitfire Audio and stuff like that. But for synths, those are the two big ones I'm using for *Industry*." FM

WANT TO KNOW MORE?

Nathan Micay's *To The God Named Dream* is out now on LUCKYME

© Kevin Winter/WireImage

PIONEERS

Daft Punk

They changed the course of dance music history using more filters than Moog. 'Daft punky thrash'? Not really.

Daft Punk were the French filtering duo who introduced genres to the world, pioneered production techniques still used to this day, mixed orchestral and analogue synth like no one else, and, more importantly than all of the above, produced some of the most iconic dance anthems ever, often with DIY studio ethos.

After sharing common music tastes in their youth, Guy-Manuel de Homem-Christo and Thomas Bangalter formed Darlin', named after a Beach Boys track, and a band that Melody Maker famously described as 'daft punky thrash'. In what would be typical of the Daft Punk twisted humour to come, they named their next outfit after the review. We would say the rest is history, but actually, it starts out at just plain weird and very 1990s.

The duo met one of the founders of Soma Quality Records at a rave at Euro Disney and ended up getting signed to the label. If that sounds made up or something that could only happen back then, the story gets even more '90s. Daft Punk ended up getting championed by none other than The Chemical Brothers who played one of the tracks Soma put out, *Da Funk*, at their live shows and helped stir up enough attention that the duo ended up in a bidding war with the major labels.

Virgin Records won out, but Daft Punk cleverly kept creative control, and for their debut album this meant retaining a DIY recording ethos. "We're very keen on recording in the bedroom and not going into studios," they told *Mixmag*. "You can do some real lo-fi stuff with two drum machines and an old synthesiser and put it out on a major label. That's seductive as well: playing with the rules."

The resulting *Homework* was a brilliant opener, and while the band would become known for more varied styles later, this was the sound that defined them right from the off: sweeping frequencies, 909 beats mixed with funky loops and way-too-cool samples. With tracks including the absolute electronic 'wow' of *Da Funk* alongside the seminal French house track *Around*

The World, Daft Punk had the biggest of arrivals. Before they knew it they were headlining festivals with the likes of Kraftwerk and Orbital.

Like helping to put that filtered sound on the map wasn't enough, *One More Time*, the opening track to Daft Punk's second album, *Discovery*, did the same with both extreme vocal processing and sidechain compression. There was more of the same with tracks like *Harder, Better, Faster, Stronger* and *Digital Love* adding to a growing catalogue of Daft Punk tracks that became dance anthems that rounded off one century and welcomed another.

Human After All (2005) was the duo's third album and rammed the robot vocal thing home so much that some tracks now sound almost like pastiches of Daft Punk – or maybe that's a couple of decades playing tricks on our brains. No matter, because Daft Punk's live shows were confirming them as the darlings of dance, helping spread the word, most importantly Stateside where they must surely be credited for lighting an early fuse for the EDM explosion there.

But perhaps a break from the vocoders and filters was needed, and that came in the unexpected form of Daft Punk's next project, a movie soundtrack to one of the most anticipated sequels, *Tron 2*. Previous FM Pioneer Wendy Carlos had penned the original's score, so it was only fitting that 21st century electronic icons should take the reins here. What Daft Punk produced was the ultimate mashup of sci-fi and electronic and orchestral music, a genius score that was both the highlight of the film and a mark in the sand for movie soundtracks.

By now, Daft Punk had pretty much every award thrown at them, so what to do next? Well, such was their status, for their (as it turns out final) album, *Random Access Memories*, they could draft in the trio of Nile Rogers, Pharrell Williams and Giorgio Moroder (among many others) to help out. In what could have certainly been a 'too many cooks' situation, they only came up with their most iconic tune, *Get Lucky*, and an album with a smooth, funky and perfect production that stands as a great final bow, even though the duo wouldn't officially part ways until 2021.

Daft Punk became more reliant on anonymity the more successful they became – a lesson on fame we should all take something from – hiding behind the helmets and some amazing productions. They might now be more famous for the party anthems, but their music crossed many more genres, and they became every music production geek's poster boys with the techniques they championed – many of which remain staples of recorded music today. But the most important pioneering trait was that they did everything – from the DIY studio and lucrative record contracts, to the genre defining and bending – on their own terms. Daft? No. Punk? Most definitely. FM

DAFT PUNK IN FOUR TRACKS

Around The World
1997

With a filtered intro sounding like a song you hear outside a club just before entering, and the robot hard-tuned vocals, Daft Punk were stamping their sound early on with *Around The World*. Not only that, but with their looks, too. The video is almost as iconic as the song itself, with helmeted robot dancing, mummies and skeletons… Ideas that may well have been hatched on that 'trip' to Euro Disney.

One More Time
2000

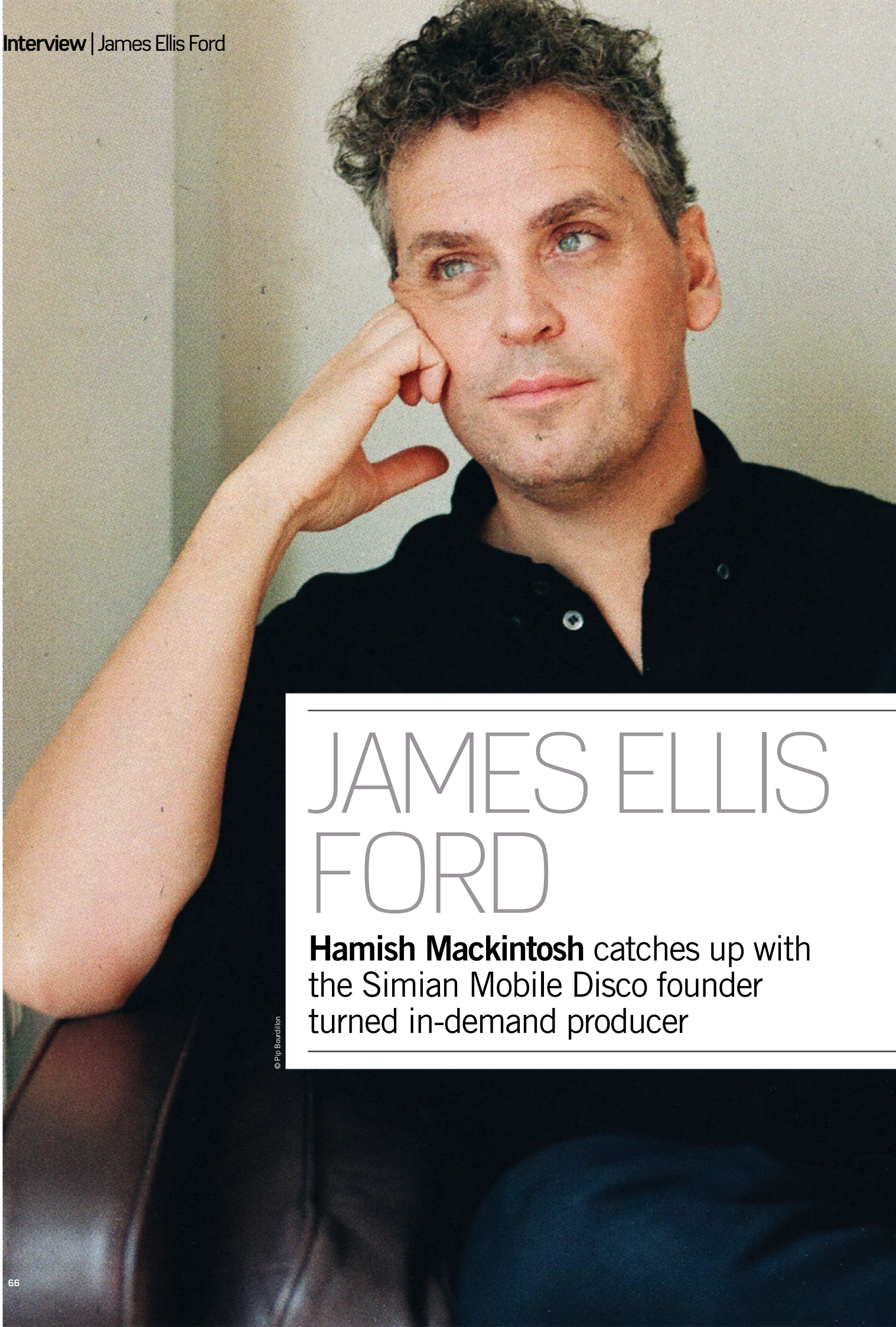
It's everything Daft Punk: the filters, the vocoder, the hard Auto-Tuning, the breakdown, the sidechain compression… They might not have invented the techniques, but this track certainly popularised them, launching an army of imitators (not to mention the odd *Future Music* article). Yet even though it contains at least five iconic production tricks, perhaps the beauty here is its simplicity – you can almost see the simple DAW arrangement – but doesn't that make it even better?

The Grid
2009

Not an obvious inclusion but, hey, it's Jeff Bridges talking over analogue synths (the bass and lead are worth the cinema ticket alone) and an 85-piece orchestra. What's not to like? Daft Punk's genius was the idea in the first place, and then cramming it into just one minute and 37 seconds. Check out *End Of Line* and *Derezzed* from the soundtrack too, the latter where Daft Punk 'cameo' in the film.

Get Lucky
2013

After sampling the funk for so long, here Daft Punk finished the journey and created the funk from scratch – and probably a gift that will be spliced, sampled and mashed for future generations of producers. Again, simplicity and repetition are key, although having Nile Rogers and Pharrell Williams onboard certainly helped nudge the track in the right direction. The song won a heap of awards and sold so much that it went Diamond in France. Who knew that level of sales even existed?



JAMES ELLIS FORD

Hamish Mackintosh catches up with the Simian Mobile Disco founder turned in-demand producer

© Pip Bourdillon

As if being 50% of the wondrous Simian Mobile Disco (along with Jas Shaw) wasn't enough to have on your CV, James Ellis Ford has applied his considerable production and mixing talents to myriad artists such as Arctic Monkeys, Depeche Mode and Gorillaz to name but three. Perpetually in demand, Ford decided to carve out some 'me' time and the result is wonderful debut solo offering, *The Hum*.

The Hum is an immersive, laid-back, radiophonic joy of an album. Pieced together in his home attic studio using what can only be described as some seriously cool outboard and equally cool studio know-how, *The Hum* sees Ford let his own imagination run free and what a glorious thing that turns out to be. Tape-loops, drones, drums and vintage synths are employed (and all played) by Ford, as well as debuting his lyrical and singing prowess, too.

FM joined Ford in his bespoke attic of many delights to find out what motivated him to fly solo on *The Hum*, talk us through his Aladdin's cave of amazing vintage gear and get some insight into the techniques that have seen him evolve into one of the most in-demand producers in the UK. Obviously, if he ever needs somewhere to safely store that beautiful Maxi-Korg then *FM* would be more than happy to oblige, too…

The phrase 'hidden in plain sight' is used to describe you in the press release, does it feel strange to be going centre stage with this solo album?

"Yeah, I think it does feel strange [laughs], and I'm still kind of questioning why I'm doing it! The thing is that the bit I love is always the studio bit and making the music. Often, people come through to work with me and I almost pity them when they have to go off and promote their stuff with all the travelling, gigs and stuff. I'm very content in my little world of making records. For some reason, this time, I had the space and, for some reason, the impetus to finish off a record on my own, for myself. I enjoyed that so when I was happy with it, I tentatively let it out to a few friends and then it became a real thing so now I'm having to do all the bits. I have some shows lined up and I still find that pretty terrifying!"

You've played live lots with SMD, but this might be a new experience for you actually fronting a band?

"Yeah, I'm essentially quite a low-key guy; fairly shy in a lot of ways. I'm confident in the stuff that I do, but being centre of attention thing is a different thing and it's not my favourite place to be, really."

Did the album have a long gestation period?

"I took it very tentatively. By nature, I'm always making little ideas even if it's just to find out how a bit of gear works, and I'll be recording all the time. I've got hundreds of little sketches on my computer and little chord sequences on my phone. I obviously collaborate a lot and I'm, thankfully, very busy and get offered to work with lots of different people, which I love. I think partly Jas getting sick and not being able to do SMD stuff to the same extent plus the pandemic and having a bit of space with that. Maybe just where I am in my life as well… I felt like I wanted to finish off some of the sketches instead of just leaving them as sketches. I also think having this studio in my house where I can try some

ideas out in secret. There aren't any studio assistants, engineers and I'm not on the clock. All those things facilitated me doing it for the first time… [laughs] although I have been questioning if it's a midlife crisis!"

Do you work differently when you work alone?

"It's a funny thing. One of the main reasons for it was that I wanted to challenge myself in a different way and consciously push myself out of my comfort zone a bit. So, singing, writing lyrics and putting myself out there is my most vulnerable, in a way that I tell other people to do all the time! So, it's given me a fresh perspective on what I'm often asking other people to do. It might even make me more sensitive as a producer."

A different side of the process...

"Yeah. There's a part I really enjoyed. I'm very much a chords, melody and structure person. That's the stuff I've always got excited about. Obviously, I've worked with a lot of people who are really good lyricists and I do often get involved in being a sounding-board for how the lyric lands or if something needs changed around in the song. But the idea of actually creating a lyric from scratch isn't something I've ever really thought about that much so that definitely felt like I was opening a different kind of box in my brain.

"So, suddenly, I was noticing sentences and I was writing down lyrics in my phone like I'd seen other people I've worked with do. It's like a fascinating jigsaw-puzzle and I really enjoyed that part of it, which I wasn't really expecting. I'm itching to do more of it but, with me, the restriction is always time. Thankfully, I'm generally pretty busy so it's a case of consciously carving out some time to just mess around again for a bit."

> "MY DESERT-ISLAND SYNTH WOULD BE MY ARP 2600. I USE THAT ON LITERALLY EVERYTHING I EVER DO! I KNOW MY WAY AROUND IT SO WELL"

With some serious kit at your disposal, what's the central hub of your attic studio set-up?

"I've got an old '60s Studer 169 desk that I use all the time, I mixed the last Arctic Monkeys stuff through that. I use it for stems then I'll insert outboard over it. Beside that there's a little Nagra tape-machine that also gets used quite a lot. Again, for running mixes through or slaps or just putting the drum-stems or strings through as it's got a nice, smooth top-end. There's a lovely-sounding Urei 1176, which I use with a 1073 copy as my main vocal chain. Above them is the Sequentix Cirklon 2, which is my MIDI hub that's MIDI'd to everything else in the room. I've got a bunch of old pres, valve gates, a Pultec EQ, a couple of amazing Altec pres, like Motown. I have a drum-kit in the corner, and I use all these as my drum pres. I turn them on, feed the channels into Pro-Tools and I can record drums immediately."

How do you decide what gear you want to start shaping an idea on?

"I'd say a lot of the time I started on the modular rig, I've got Serge stuff, which is what I tend to use the most as it just seems to get to an interesting place quite quickly. Me and Jas went pretty deep down the Eurorack hole, although I must admit, I'm coming out the other side of it now. All this Eurorack stuff doesn't get turned on all that much. It's like a 'greatest hits' of Eurorack modules; a lot of it is processing stuff like Mutable Instruments, which I use a little bit but not that often."

What were your go-to synths for *The Hum*?

"My desert-island synth would be my ARP 2600. I use that on literally everything I ever do! I know my way around it so well and you can get everything from great bass and lead sounds to brilliant percussion and effects. They're so versatile and with it being semi-modular you can get there really quickly. It's all MIDI'd up into the Cirklon. I've got a Maxi-Korg, which was my first synth ever and I've had it since I was 14. It still sounds amazing to my ears. It's got great filters although the way it works is slightly odd. I've been using my SH-101 quite a lot recently. It's got Aphex mods on it so you can have it FM itself and feed it back on itself, which sounds really nice. I've got a couple of Oberheim Matrix racks that I use quite a lot. I've got them joined together with a controller, so you get like a stereo synth with them linked."

There are certainly a lot of different directions you could take with some of this gear?

"I've got this bass clarinet. I learned flute when I was a kid, I've got a flute here too, so I bought the clarinet and had a go at it on the album. The fingering is a little similar to the flute and there were things I had to learn but I can play a melody on it so it's fine. So, yeah, for this album it was a lot of fucking around in here. Sometimes I'd get something going on the Serge, record it then maybe play the drums over it. I was trying not to fuck around too much with what I recorded so I'd basically do a lot of first takes and do it as quick as I could, then leave it to one side before I got sick of it before coming back to them in a few weeks. The ones that still seemed interesting to me I'd then put a melody on or something like that."

Was it difficult to separate James the artist from James the producer?

"Well, the way I tend to produce is that I tend to kind of pretend I'm in the band. I'm pretty hands-on so I tend to play quite a lot anyway. I think I've maybe overstepped the mark with that in the past, but I try to be sensitive to what people need in different situations. Really, being a producer, to me, is what it's about. Filling in the gaps and doing what it takes to finish a record. Those last couple of Jessie Ware records I did with her; the music was all done up here. Sometimes it's very much just like getting the vibe right or whatever or judging people's personalities in the room and that kind of thing. So, there's a very big sliding scale of what a producer is for me, which I love."

It looks like you've put enough thought into your creative space that everything aids your flow?

"I think so. Going back to the gear, underneath the modular stuff I have a rack of delays. On this album I did a lot of the

Karplus-strong type ringy delays with this Ursa Major Space Station, and I'm still a big fan of my Eventide H3000, and next to that I've got this weird Russian octaver/distortion/delay that's almost like a Synthi Hi-fli. There's a Roland tape-echo that I love and a Mutron Bi-Phase that goes on practically everything! Over on my other side there's an 8-track tape-machine that I often have on the patchbay through some master chain stuff and that allows me to hit record and have the drums going through the repro head of the tape-machine.

"Again, it's like a 'greatest hits' of gear in here as it's quite a small room so everything in here has got a value to me. It's all things that I've acquired over the years. Some of it is new. The most recent purchase is an Akebono SK10 Koto synth. I also got a Therevox recently, which is an Ondes Martenot-type of keyboard. There's a Philacorda organ and I've got a Leslie crammed in over there in the corner."

Does your wife ever get to see you at all?

"[Laughs] She likes watching crime dramas, so I'll pop up here and make some loops or something. Over on this back wall I've got two Revox tape-machines with tape going in-between them so that's kind of like the Frippertronics thing. Basically, I've got a mixer over here and I record into the first tape-machine, the tape goes over into the second machine then I feed the output of that back into the first machine. I've got keyboards, effects and all sorts over beside the tape-machines so I'll often, for my own entertainment, set some loops going and play into it with whatever comes to hand. I find it really relaxing."

So now we know where the sumptuous *Tape Loop #7* that kicks-off your album was created?

"I've always liked Harold Budd, Fripp and Eno and all those types of records so I suppose I was heading into that kind of zone. It's really fun making the loops and I've got mountains of it on the computer… I don't know whether I might put it on Bandcamp at some point."

Seems almost superfluous to ask, but is there anything you'd like to add to the studio set-up?

"Not really… I think maybe similar to the Eurorack thing that I'm coming to the end of my gear acquisition syndrome. There are always things you'll see and maybe a few things will come in or a few go out but realistically I've been down all those avenues, really! Also, it does sound ridiculous to say after me showing you around all this stuff, but it does come to a point where it's just about you and not about the equipment. It's very fucking obvious, but a lot of people make brilliant records just on a laptop."

Is that something you've done yourself?

"Personally, I struggle with that. There was a phase when I was trying to do Ableton when I was travelling, and I do find it interesting with MaxMSP and those things but there's just something about the physical interaction for me. I don't know why that is but it just works better for me. Even with Pro-Tools I try and keep the editing to a minimum and try and use it as a tape-machine as much as possible."

It's certainly the most 'tape-machine-like' of all the DAWs, isn't it?

"I think so, and it can still be frustrating as the MIDI's a bit shit in it, so I tend to sync the Cirklon and do the MIDI again; the hardware. Maybe it's different if you're doing a string arrangement or something but for electronic music the hardware stuff gives you something back that you're expecting. It feels like you're in the room and it's a relationship rather than you just telling a computer what to do."

Is Pro-Tools the only software to be found on *The Hum*, then?

"I use Pro-Tools for everything. Like I say, I'm pretty handy on Ableton and it's incredible for making a certain type of music. We used Ableton all the time in Simian Mobile Disco for MIDI-programming as it's streets ahead of Pro-Tools for that, but I'm just really used to arranging and mixing in Pro-Tools and I could never particularly get my head around finishing a track in Ableton in the same way. Same with Logic. I feel like Logic is slap-bang in the middle of the other two. It's probably better in terms of MIDI and its samplers and tools but the way I use Pro-Tools is pretty old-school like a tape-machine. I'm so used to it that I don't even have to think about it."

It's ironic that music companies spent years developing gear to make pristine audio, yet now we're chasing the clicks and pops vintage outboard gives us.

"Yeah, I spent all my time trying to make things sound worse, whatever worse means. With Pro-Tools there's just too much information there. We're used to hearing all those records where there's so much harmonic distortion and the bandwidth is so limited and it's sometimes hard to remember that as you're going through. I think it's sometimes annoying to reverse engineer that on a computer and it's better to use the gear that does it automatically. Even something like the ARP 2600, part of what makes it so cool is not the oscillators, it's the way it distorts. For me, most of the new synths haven't quite got how cranky that old gear actually is. A lot of times I might use a UAD 1176 over this hardware one as it's doing a job and it sounds cool. I think we're getting to the point where in a couple of years, if not already, AI can just generate music, including vocals. The thing it still can't do is be a human.

"For me, the records I love and the things that I love about those records is when you can hear the human in it. All the choices and little mistakes and things they did intentionally or unintentionally. The problem with something like Pro-Tools is that now you can fix and tweak and make anything perfect and you're almost erasing yourself from the record. So, yeah, with my own album and as much as people will let me these days, I'll try and leave it as loose as possible."

"NO MATTER HOW MANY RECORDS I'VE MADE, THAT BIT NEVER GETS EASIER. THERE COMES A POINT WHERE YOU HAVE TO LET IT GO..."

Was it nice to be guardian of your own aesthetic whilst making *The Hum*?

"Yeah, it is nice to do what you want. It is a mixed bag as you've then got to pull the confidence from somewhere to know when it's finished and that it's good enough and all that stuff. No matter how many records I've made, that bit never gets easier. There comes a point where you have to let it go… Often with me, it's a case of prying it out of people's hands! When you're on your own it's really hard to let things go and the only way I could navigate through that was to move as quickly as possible."

Did everything go onto *The Hum*, or can we hopefully expect more solo outings?

"Yeah, there's piles of 'stuff'. Like I said, my process is really sifting through the mountains of sketches and just finding the time to pursue a few of them. There are a few other things that are pretty near finished, and I've just done a couple of pretty big projects this year so I'm planning to try and have a freer rest of the year to do more of this stuff. That's my intention, anyway." FM

WANT TO KNOW MORE?

The Hum is available on Warp Records. More on new releases and live shows from **jamesellisford.com**

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SAMPLE LIBRARY
INCLUDES OVER 600 SAMPLES
WWW.AUDIOTENT.COM

FutureMusic Platinum Award

Bitwig Studio 5 From £79

The new additions might not look like very much on paper but, as **Si Truss** explains, the more you explore Bitwig 5, the more radical it begins to look

CONTACT **WHO:** Bitwig **WEB:** bitwig.com **KEY FEATURES** **NEW VERSION PRICING:** Bitwig Essentials £79, Bitwig Producer £169, Bitwig Studio £340. Upgrade pricing available. **FORMATS:** PC/Mac/Linux

THE PROS & CONS

+

MSEGs become more and more inspiring the more you use them

Wavetable LFO is a great addition

Modulating mixer parameters offers lots of powerful potential

–

Depth and complexity won't be for everyone

Browsing user sample folders could be slicker

Bitwig Studio is nearly ten and, at this fifth iteration, has shed its reputation as an upstart Ableton-alike. Relative user base numbers aside, as an application it certainly warrants being considered up there with the top-tier DAWs; perhaps unlikely to unseat the truly big names, but sat alongside the likes of Cubase, FL Studio or Reason.

More so than many rival DAWs, Bitwig Studio is an application with a very distinct personality. Detractors may argue that much of that personality is based on that of Ableton Live, given their shared history, but from its second iteration onwards Bitwig has been heading in its own distinct direction. Think of the two like a pair of twins, one who has joined the police force and lives a lawful life, one sucked into a life of crime – two different sides of a coin.

Bitwig in 2023 puts a major emphasis on the interplay of its various systems, the flexibility of its modular devices and its ability to be tailored to a wide variety of platforms and use cases. As well as Ableton Live, the likes of Reaktor, Max and the hardware modular realm are equally obvious points of comparison.

The headline new feature for Bitwig 5 is the addition of MSEGs, or multi-stage envelope generators. In typical Bitwig fashion, these don't look like much at first glance, but become far more interesting once you consider how they interact with Bitwig Studio's other systems.

There are five MSEG types, named Curves, Segments, Slopes, Transfer and Scrawl. These share the same basic interface, but differ in application. Each is focused around a pop-out window that offers a space to draw a custom modulation curve. This can be snapped to a grid set to various beat divisions, then shaped using an assortment of tools for both freehand drawing and quickly inserting various common shapes, such as squares, saw waves and triangles. As a setup, it's not dissimilar to the custom shapers in CableGuys' ShaperBox or the Function generators of Pigments.

THE ALTERNATIVES

Ableton Live From 89€

Live shares a lot of DNA with Bitwig but is more accessible at the expense of some creative depth, though Max for Live makes up for that.

ableton.com

VCV Rack Free (with paid versions available)

A more straightforward, hardware-inspired take on some of the modular concepts offered by Bitwig Studio. It's free to start too

vcvrack.com

Cableguys Shaperbox 3 $99

The custom curve concept used by Bitwig's MSEGs is used brilliantly in Cableguys' popular multi-effect plugin

cableguys.com

Curves is a modulator, available to add to any device, for use within the Grid, or to modulate track and project settings (more on that shortly). It's essentially a custom LFO, constantly cycling based on a rate that can be free running or set to sync to a variety of timing parameters.

Segments is another modulator and functions in a very similar manner to Curves, albeit acting as an envelope triggered by each new note input, rather than a constantly cycling LFO. Curves has a few additional functions, such as multiple playback modes. These control how the envelope behaves during an assignable 'sustain' region of the modulation curve. In One-Shot mode it simply plays through once, start to finish. In Hold the modulation will stay at the end of the assigned sustain section until the note is released. Loop mode will cycle through the set sustain section, while Ping-Pong sees the modulation cycle bounce back and forth through the sustain section.

While both Curves and Segments are fairly straightforward at first glance, the fact that both can be used pretty much anyway in the DAW, and in unlimited numbers, makes them hugely capable. They can, for example, be routed to control any synth or effect parameter, including all Bitwig devices, any third party plugin or – via the DAW's MIDI or CV utilities – any modulation input on a hardware synth. Curves and Segments, like Bitwig's other modulators, are also open to modulation themselves, allowing, for example, the timing or phase of the modulation to be controlled via MIDI expression or another modulator. Both feature 'smoothing' options too, allowing the rough edges of curve changes to be flattened out over a specified time period.

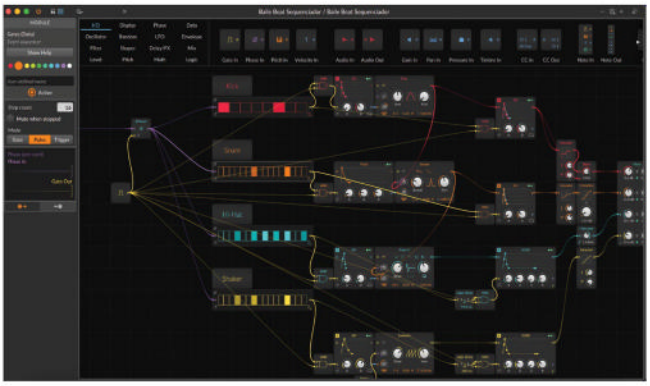
Version 5 ups the potential for these modulation routings by allowing modulators to be attached to both track and project-level settings. These are accessed via nested modulation slots found in each track's device chain. Attaching a modulator at the appropriate level means they can now be routed to things like a track's mixer level or pan, or even global settings like project tempo. How useful is all of this in practice? It's certainly neat to be able to apply LFOs to a track's pan position, and using long envelopes to modulate levels in the mixer is a nice way to bring elements in and out. I'm not sure how practically useful it is to be able to modulate or randomise project tempo, but the fact the possibility exists adds to the overall sandbox approach of the DAW.

Returning to the MSEGs, Slopes is a custom pattern sequencer available in Bitwig's modular Grid devices. It effectively allows users to draw a shape and then route it to modulate whatever they desire within that modular setup – from pitch to parameter settings, or even the rate of another sequencer. Scrawl and Transfer are probably the most interesting. These both work similarly to the other MSEGs, allowing users to draw custom curve shapes, but here they're used for audio purposes, as an oscillator and waveshaper respectively. Scrawl can be deployed

> The fact that Bitwig Studio isn't for everyone is actually to its credit

VERSION TIERS

With version 5, Bitwig is introducing a tiered system of versions at different price points – not unlike Ableton's Intro, Standard and Suite versions of Live. Here they're labelled Essentials, Producer and simply Bitwig Studio. There are no track limits on any version, but Essentials trims the device list to 40 instruments and effects and 10 modulators. Producer ups that to 92 devices and 18 modulators, but forgoes the deepest of Bitwig devices. Studio has the full suite, and is the only version to include The Grid modular devices. In a neat touch, users of Essentials or Producer can still open projects created in more advanced versions, and any devices they don't have access to will still function, albeit in 'player' modes with limited parameters.



as an oscillator type both within the Grid and in Bitwig's Polymer synth (which can also use Segments in its envelope module). Transfer is exclusively for use within The Grid, although it can easily be used as an effect elsewhere via the Grid FX device, and will reshape audio around the custom curve, with a drive control that can really push the effect when cranked up. Both tools are lots of fun to play around with, making it easy to sketch out weird and elaborate shapes and see what sort of harmonics arise.

Bitwig Studio has a new file type that allows custom curves to be saved, recalled and shared between MSEGs. There's also a generous offering of preset curves. The interchangeability is great and there's lots of experimental fun to be had, swapping curve shapes between modulation and audio duties.

The MSEGs are a fantastic addition to the DAW overall, which prove more and more inspiring the more you play with them. Bitwig have included a bundle of new presets and sound content specifically aimed at showing off their capabilities, but the real fun comes from imagining the weird and unusual ways you can apply them into your own creations, and relying on presets is almost missing the point.

My one wish for future updates would be more capabilities to modulate the curve shapes themselves. You can modulate phase position and timing of each, but the actual curve shapes themselves are effectively static. It'd be great to, say, assign two or more curves and morph or modulate between them.

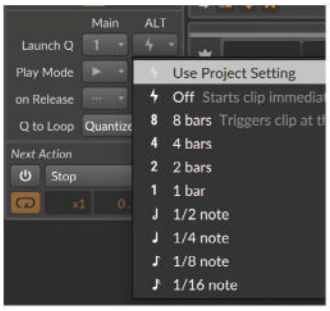
That said, you can do something similar using another new addition for v5, the Wavetable LFO modulator. This allows for any of the DAW's stock of wavetables to be used as an LFO source, with capabilities for modulating the table position. It's a fantastic tool for adding ever-shifting modulation to sounds – a potential secret weapon for ambient producers.

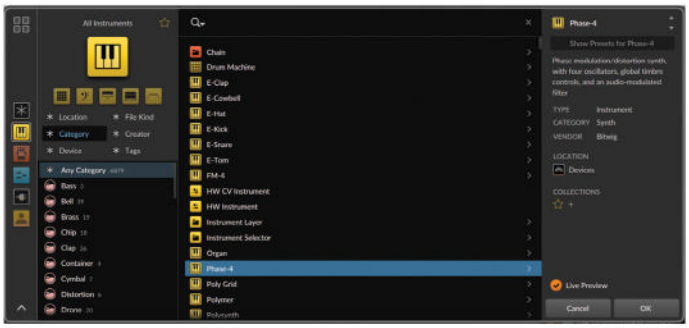
There are other, less high-profile changes and additions elsewhere though. Bitwig's browser has been overhauled and works brilliantly for finding instruments and presets, but isn't quite so slick when it comes to navigating through your own folders of samples. The Clip Launcher has been upgraded too with a new 'Alt' mode for launching scenes and clips via gestures, which offers some fun potential for live performers.

Taken as a whole, version 5 of Bitwig Studio is an unrivalled sandbox for creativity. It may be standing on the shoulders of giants, but no single piece of software before it has brought this level of all-round, accessible creative potential.

That said, the more tools Bitwig adds, the more elaborate the DAW gets. While the overall workflow is far from impenetrable, complicated projects can get somewhat unwieldy. Ultimately Bitwig is now at a point where it offers capabilities that many music makers simply don't need, and those people are likely better served by more streamlined applications.

The fact that Bitwig Studio isn't for everyone is actually to its credit though – while some DAWs try to be all things to all music-makers, Bitwig have chosen to focus on a certain type of experimentally-minded, largely electronic user base. And it's all the better for that focus. For those interested in exploring its capabilities, there's nothing else on the market to match it. **FM**





MSEGs: All five MSEGs share a similar pop-out curve designer, allowing users to draw or import custom shapes

MODULATION: Nested modulators can now be added to control parameters at device, track or whole project level

BROWSER: The updated browser looks far smarter and makes it easy to search for instruments, presets and pack content

CLIP LAUNCHING: New 'Alt' modes for the clip launcher add additional options to control the way scenes and clips respond

FM VERDICT

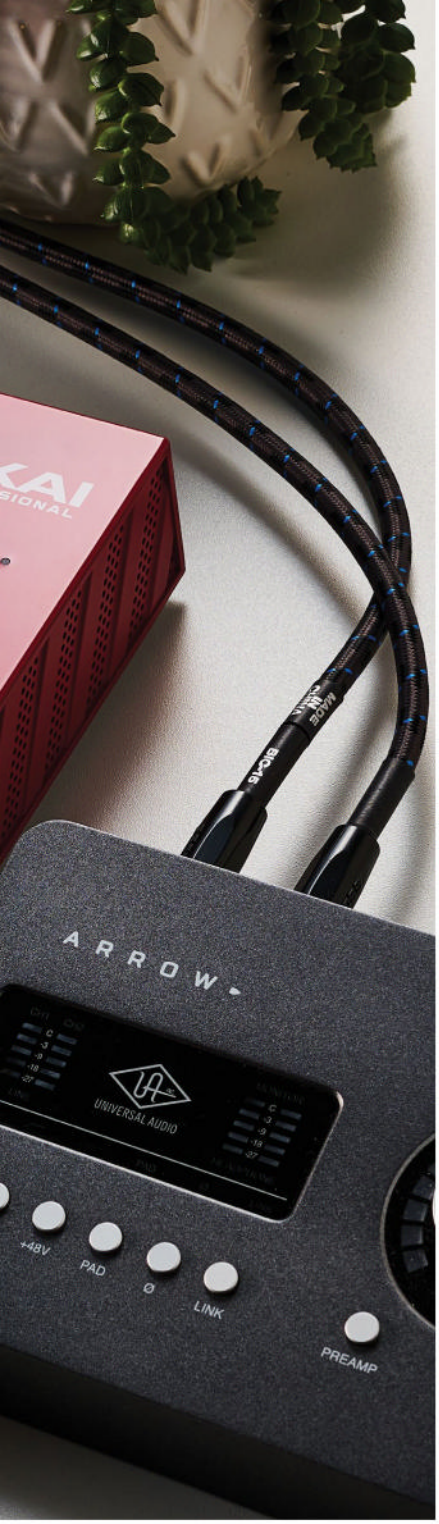
9.8

At v5, Bitwig Studio is hugely creative, experimental and deep. That won't suit everyone, but in its niche it's unrivalled

Akai Pro MPC One+ £699

Akai's MPC One+ upgrade brings Wi-Fi, Bluetooth, a little more storage and a hot red finish. **Martin Delaney** gives his verdict

CONTACT **WHO:** Akai Professional **WEB:** www.akaipro.com **KEY FEATURES I/O:** 16 velocity/pressure-sensitive RGB backlit pads with eight banks, four 360° touch-sensitive Q-Link knobs, large data encoder, 31 function buttons, 7" diagonal multitouch display, multicore ARM processor, 2GB RAM, 16GB storage, SD card storage, Wi-Fi, Bluetooth, Ableton Link, class-compliant USB audio interface compatibility



THE PROS & CONS

+

WiFi, Ableton Link support and Bluetooth for wireless MIDI controllers

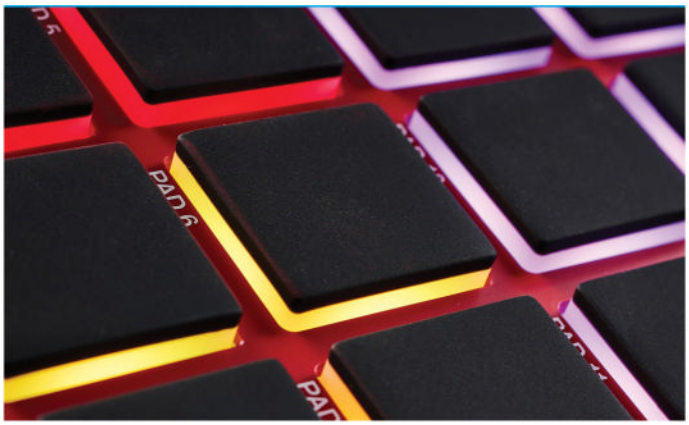
Works standalone, or combined with other hardware/software

External class-compliant USB audio interfaces can be added to expand I/O connectivity

–

Despite the upgrade to 16GB, the onboard storage still feels limited

We'd really like an onboard guitar/microphone input, and a full size 1/4" headphone jack



It's the entry-level MPC, but quite capable of producing complete pieces of music

Having used Akai's MPC Live (Mks 1 and 2), MPC Keys 61, and flagship MPC X SE, the mysteries of the smallest MPC, the One, have eluded me until now. It's time to put that right, as Akai release the upgraded MPC One+, which adds WiFi and Bluetooth, 16GB onboard storage, and of course the red finish.

The package contains the MPC One+, a power supply, a USB cable, a printed introduction sheet, and software bundle download details. Out of the box, the One+ is as red as could be, it's a strong statement, and if nothing else it separates it from previous black and grey iterations. The top panel features the trademark 16 MPC pads with eight banks, a 7" multi-touch display, four Q-Link knobs, a large rotary encoder, and dedicated function buttons. The rear panel features a master volume knob, main output 1/2 on 1/4" jacks, main inputs 1/2 on 1/4" jacks, a record volume knob, four CV/gate jacks, full-size MIDI in/out, Kensington lock slot, USB A and B ports, mains power supply socket and on/off switch. It doesn't have dedicated microphone or guitar inputs – for those you'll need a preamp, or the USB audio interface expansion. The front includes 1/8" headphone jack and SD card slot (there's no option to install a hard drive, although there is more than 2GB of sample content stored internally).

The MPC One+ arrived ready to play, and usefully, thanks to the WiFi capability, you're prompted about available updates. We had an OS update (2.12.1) with plugin instruments to download, and demos to authorise. Splice account holders can sign in and access their material as well. This is a much smoother process than having to go back and forth with a computer connected. We needed an SD card to accommodate the instrument content.

The MPCs share a common operating system, so we're not going to go into too much depth with that aspect here, it's been covered already. But the bare bones are that they all give you sampling, looping, 128 tracks of MIDI sequencing, and eight audio tracks. The sequencing can take the form of grid-based note entry, or a step sequencer, which might be cool for live performance, alongside the endlessly fun XYFX. Samples can be used to create instrument patches called keygroups, and there's a selection of instrument plugins included, featuring Bassline, Hype, Mellotron, and DrumSynth. Further instruments are available to purchase and download direct to the One+, and of course there are numerous audio effects. A typical workflow might begin with loading a drum kit, and creating a beat, using a combination of drawing notes in grid

THE ALTERNATIVES

Elektron Digitakt £829

This 8-track sampling drum machine and sequencer lets you sequence external gear, filters, LFOs, or apply audio effects to external inputs.

elektron.se

NI Maschine Mk 3 £539

NI's take on sampling and sequencing functions as a 96 kHz/24-bit audio interface and controller for the computer.

nativeinstruments.com

Roland SP-404 Mk II £409

The latest in the line of popular SP-series samplers, the SP-404 Mk II includes an OLED display, updated pads and knobs, expanded effects. Also includes 16GB of internal storage.

roland.com

mode, and recording in real time, followed by adding effects to individual pads in the kit, or across the entire kit. Then you might load one or two instrument plugins and program or record some MIDI parts, using either the pads or a MIDI keyboard. 16 small pads might not seem like the best way to enter instrument parts, but they're to the usual MPC standard, and there's always Pad Perform Mode, where each pad triggers a chord, and handy progressions can be played with one finger, while referring to the info on the display. This is a simple and effective way to add musicality to basic beats. Once a few patterns have been created, they can be chained together to form a song, and finally mixed down to a stereo file, or the project can be sent to MPC Studio on the computer for more work.

Beyond our test project, we used Ableton Link to wirelessly sync the One+ with Logic Pro for iPad, and Ableton Live 11 on macOS; this is a refreshingly simple way to get devices locked in together. In the absence of a hardware mixer, we routed the audio from the linked device back through the One+. At this point, we realised we'd like more inputs, and successfully connected the Audient EVO8 USB interface to give us four inputs (four in total, you can't use the onboard I/O at the same time). Up to 32 inputs and outputs are available over USB, but check for compatibility before purchasing specific devices.

The One+ is easy to get going with, especially for those who know the MPC workflow already. If you live to make beats, an MPC is always a good choice, but the One+ can take you to other realms too. That said, despite the enhancements, the One+ probably isn't a worthwhile upgrade for current One owners… unless you really, really, like the colour.

DISPLAY: The 7" multitouch colour display is standard on MPCs, and strikes a balance with the pads and buttons

PADS: This 4x4 grid features slightly smaller pads than other MPCs. Pad Perform Mode is great for adding keyboard parts

CONNECTIONS: The One+ has a lot of physical connectivity for its size, then there's the Wi-Fi and Bluetooth on top

The One+ is supposedly the entry-level MPC, but it's quite capable of producing complete pieces of music. We spent most of our time treating it as a sample-based drum machine, with a few instrumental frills on top. In terms of the '+' update, the most useful element is the wireless connectivity. Having now used all of the current MPCs, we'd say that this may not be the most fully-featured in hardware terms, but it's one of the most fun to use. **FM**

HARDWARE TALKING TO SOFTWARE

Standalone music production credentials aside, you can also integrate it with your favourite software on macOS or Windows. The MPC One+ includes a licence for Akai's own DAW: MPC Studio 2.0. This software lets you keep working with projects originated on the One+. If the hardware is connected to the computer, it can be used as a control interface as well. Alternately, projects can be originated in MPC Studio and moved to the One+, perhaps for gigs. If you prefer Ableton Live, the One+ can export to Ableton Live projects, which can be continued on the computer, and also function as a MIDI controller for Live's Session View, mixer, and devices.

FM VERDICT

8.0

A minor but effective update to the original; wireless connectivity means fewer cables, always a good thing. And the colour? We like it

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Audio-Technica ATS99 £280

Tired of the same old dynamic handheld mics? **Jon Musgrave** plugs up this new offering from Audio-Technica

CONTACT **WHO:** Audio-Technica **WEB:** audio-technica.com **KEY FEATURES** **POLAR PATTERN:** Hypercardioid **FREQ RESPONSE:** 60Hz-16kHz **IMPEDANCE:** 600 Ohms **OPEN CIRCUIT SENSITIVITY:** -52dB (0 dB=1 V/Pa, 1kHz) **OUTPUT CONNECTOR:** 3-pin XLR **DIMENSIONS:** 181.5 x 50mm **WEIGHT:** 262g **ACCESSORIES:** stand clamp for 5/8" stands, 3/8" stand adapter, carry pouch

The ATS99 is a new premium handheld dynamic mic from Audio-Technica. Incorporating a machined aluminium body with stylish headstock and grille, it feels solid and looks great. But there are plenty of features under the hood that look to lift the ATS99 above your average dynamic. First up, it aims for a good frequency response (60Hz-16kHz is quoted), and a high magnetic force magnet is used alongside a step up transformer to help improve the low mids at high volumes. Next up, the narrow hypercardioid design controls the off axis pick up, and finally the internal shock mounting system reduces handling noise.

Smooth looks

The box includes the mic, a carry pouch and regular slide-in mic clip, and in typical Audio-Technica style this Japanese-made mic oozes quality. The finish is satin black and the headstock shape is nice and smooth, which feels great when you get it right up to your mouth. At 262g the mic isn't too heavy, despite being medium in size (about 18cm long), and is actually lighter than a Shure Beta 57a, which is a noticeably more compact mic. The headstock follows a standard format and removing the grille reveals it to be a multilayer design supplemented with an internal foam layer. There's also a thin layer of foam on the top of the actual capsule. Audio-Technica doesn't quote any noise figures for the ATS99, but at 2.51mV/Pa the sensitivity is pretty typical for a mic of this type and I certainly didn't feel it needed excess preamp gain.

Most handheld dynamics are used up close, so it's important to establish how the mic performs when used in this way. I have to say, the ATS99 is very good. At a couple of centimetres there is some proximity effect, though not an unpleasant amount, and the handling of plosives is excellent. Breathing noise is picked up but quite well diffused by the grille, and the handling noise is reasonably subdued. Even so, the important takeaway is that the mic sounds great used in this way, with plenty of mid range articulation and a nice bit of high-frequency air not always found with dynamics. That said, the hypercardioid pattern means this air drops off quite sharply as you move off axis, and as you would expect at 90 degrees the overall rejection is quite pronounced. I'm not averse to using dynamic mics like this to record acoustic guitar, and the ATS99 really delivers for this, sounding great at about 20cm to 30cm. It's also pretty good in front of a guitar amp. Given its size I would probably avoid using it on a snare drum, although I'm sure it would also sound great for this.

> There's plenty of mid range articulation and a nice bit of high-frequency air

Quality choice

Despite the dominance of a few models, it's great to see manufacturers continue to refine the classic handheld dynamic, and this offering from AT is a great example. Comfortable to use, with a slick, stylish design, quality delivery and premium build quality, it's an attractive choice. At £280 it's Audio-Technica's most expensive handheld dynamic and is clearly not cheap so it would be wise to try it out before taking the plunge. FM

FM VERDICT

9.0

Audio-Technica's latest handheld dynamic mic is a real beauty that is easy to use, excellently finished and really delivers sonically

THE PROS & CONS

+

Solid but light construction

Sounds great up close

Good handling of plosives

Nicely shaped headstock

Excellent finish

–

Expensive

Arturia KeyLab Essential Mk3

from €199

Jon Musgrave dons a white coat and mulls this 'refreshed' batch of controllers

CONTACT **WHO:** Arturia **WEB:** arturia.com **KEY FEATURES** 61-note velocity sensitive keyboard with hybrid synth-piano feel, 8 touch and pressure sensitive pads, 2.5" bright LCD display with backlit contextual buttons, 1 main encoder, 9 rotary encoders, 9 x 30mm faders, 8 transport and 4 command buttons **PRICING:** 49 key – **€199,** 61 key – **€249**

Arturia's affordable KeyLab Essential range has just been overhauled. Available in 49-note and 61-note versions in either black or white, we've got a white 61-note unit. The core controls look much like its predecessor, but on closer inspection it's obvious the whole thing has had a considerable upgrade, with an excellent new display, improved backlit buttons and pads, and overall slicker casework. Round the back, things have also changed, with a regular MIDI output joined by a software definable footswitch input (sustain, expression and footswitch). Meanwhile computer connectivity is now via USB-C, which doubles as a power input for standalone use. Alas, there are no CV outputs but I don't think that's much of a surprise at this price point.

The top panel has been reworked around the new display, which incorporates four backlit contextual buttons allowing flexible feature implementation. There are no longer specifically labelled Ableton Live or Arturia Analog Lab buttons. However, what you now have is a multifunction Part button that accesses a 2-layer editable keyboard split (a new feature) and also allows you to switch between two parts in Arturia's Analog Lab V. Further panel controls include arpeggiator, note hold and both scale and chord modes.

As before, behaviour of the faders, encoders and panel controls is defined by one of three program modes (Arturia, DAW and User), but this is now supported by the much more informative screen. Arturia mode is designed to control Analog Lab V and other Arturia synths, with faders, encoders and display soft keys assigned accordingly. The main rotary encoder is used for preset navigation and loading. Meanwhile grabbing other controls reveals their parameter names and values onscreen.

The whole thing has had a considerable upgrade

For DAW control mode, there are installable scripts for five main DAWs. As an example, in Logic Pro the channel navigation uses the main rotary encoder, meanwhile channel mute and solo are screen soft keys, and channel pan and level use fader and encoder nine. The remaining encoders and faders are automatically assigned to instrument controls. The assignments work better for some instruments than others, but with full parameter feedback on the display, it's easy to see what you're modifying. If you do want more specific assignments, the User program mode can be used in conjunction with Arturia's MIDI Control Centre software. This same software is used to adjust other settings such as the footswitch mode mentioned above.

The Keylab Essential Mk3 action is a hybrid synth-piano feel that is precise and reasonably springy, and mechanical noise is kept in check, which I like.

Meanwhile, the mod wheel and pitch bend are physically a bit lightweight, but function fine. Users benefit from a solid software bundle that includes Arturia Analog Lab V, Ableton Live Lite, two piano instruments (NI The Gentleman and UVI Model D), 40 free music lessons on Melodics and a 2-month trial subscription for Loopcloud.

All told, I really like this controller and it offers good features for the money. It's at its best integrating with Arturia's Analog Lab V, but the new display delivers good and immediate feedback, working very well with the script supported DAWs. FM

FM VERDICT

9.1

Better and slicker than its predecessor, delivering great controller features, quality design and easy DAW integration at a good price

THE PROS & CONS

+

New screen with integrated backlit soft keys

Excellent integration with Arturia Analog Lab V

Advanced DAW scripts for the big five DAWs

Good quality key bed

MIDI output

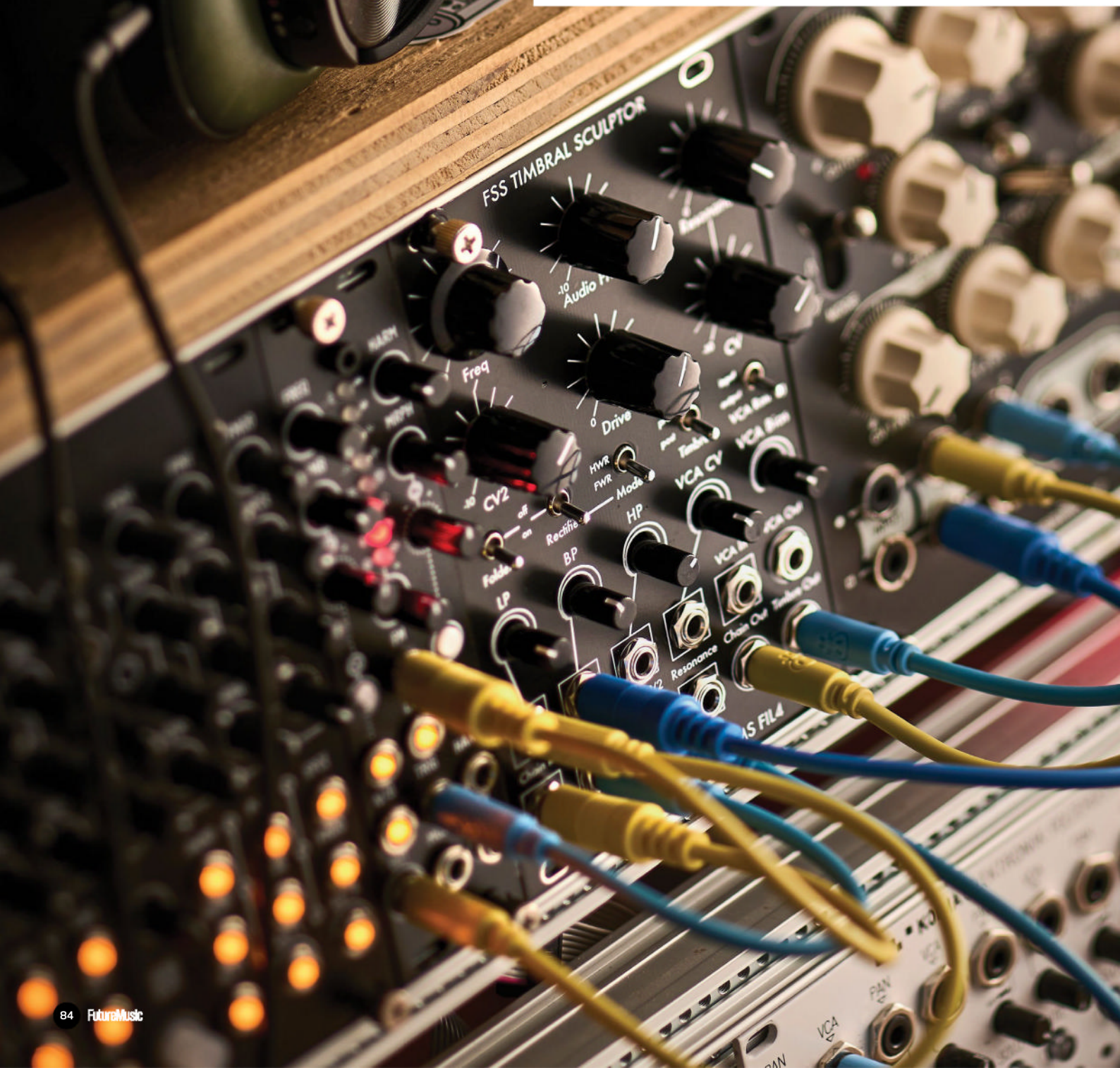
–

No CV outputs

FSS FIL4 Timbral Sculptor 319

Does this 'timbral sculpting' tool blend the best of East and West Coast design? For **Phil Wise** it was love at first sight

CONTACT **WHO:** Future Sound Systems **WEB:** futuresoundsystems.co.uk **KEY FEATURES**
-18db multi mode filter, rectifier, two types of wave folder, VCA



Future Sound Systems' latest offering, the FIL4 Timbral Sculptor, provides a variety of timbre-shaping goodies in one handy package. On the one hand, it offers the additive qualities of West Coast wavefolding and, on the other, subtractive East Coast filtering to carve out unique sounds.

Let's start with the filter. It's a -18dB slope multi-mode running on an SSI2164 filter core, but rather than offering separate outputs for LP, BP and HP, the Timbral Sculptor has level controls (with CV inputs) for the different modes, allowing much greater control. The filter on its own sounds smooth and clean. It features a slightly accentuated resonance at high cut-off frequencies which lends it a 303-esque tone when modulated. There are two CV inputs: the first has 1v/oct tracking; the second runs through an attenuverter. The filter also boasts an audio FM attenuverter; inspired by the quirks of the Korg35 filter, this can provide some beautiful instability.

Moving on to the wave-folding, there are two separate folders: the first a Buchla-style Deadband switchable pre or post filter, the second a Lockhart which, along with a rectifier, sit in the resonance path. Not being a fan of squealing resonance, this at first seemed a strange choice to me. Little did I know the sonic delights that it would provide… The module is completed by a VCA circuit which can also be switched to the input or output or even used independently of the signal chain. The drive control affects the amount of wave-folding, with the VCA input providing you with CV control.

The FIL4 offers a great deal of flexibility over routing, but one thing that tripped me up initially is the fact that you have to re-patch inputs and outputs depending on the VCA position in the chain. No doubt this is unavoidable but it does feel a little clunky. Moving past that, on first play, the wave-folder and half/full wave rectification unleashed a maelstrom of sonic destruction. All good fun and this may be exactly what you're looking for but I sought a little more subtlety. Once I'd got to grips with the Sculptor I soon found that the timbral palette was actually very broad.

In the best way, this is a module that revels in non-linearity, each element of the control and signal chain influences the others, making it easy to get lost in sonic exploration. Starting with a simple sine wave input, I was quickly pulling out a sound that morphed from natural woodwind to the guttural croak of a 303. Note, however, that it also plays well with complex sounds sources.

Once you've found an interesting sweet spot, there is plenty of room to vary the tone to keep your synth line interesting. I found subtle modulations, unusual distortions and even some 8-bit effects and strange pitch sweeps courtesy of the rectifier. It does occasionally drop into discordance or silence but this is the nature of such a beast. Like the rest of FSS output, this is all about pushing analogue electronics to the edge. It's what drew me to modular in the first place, it's organic and surprising and when applied subtly can be just the thing you need to bring your sounds to life. FM

FM VERDICT

9.0

A rich and rewarding tool than can bring some analogue uncertainty to any synth sound. Why not ditch your old filter and start timbral sculpting?

THE PROS & CONS

+

Full of analogue goodness, non-linearity and surprises

Very flexible routing system

The filter offers an audio FM attenuverter

–

Having to repatch to change the position of the VCA in the signal chain

Arturia MicroFreak v5 £295

The eccentric digital synth gets some solid sampling capabilities. **Si Truss** goes granular

CONTACT **WHO:** Arturia **WEB:** arturia.com **KEY FEATURES** Firmware update, free to existing users. Adds four new oscillator 'engine' modes, along with user sample upload, snappy envelope mode and keyboard modulation options.

You have to admire Arturia's commitment to the MicroFreak. It was already an impressive instrument when it landed in 2021, combining an analogue filter with a multitude of digital oscillator modes that brought a touch of Eurorack-inspired eccentricity to the budget synth realm. Its capabilities have continued to grow since launch though, with various firmware updates adding new presets, improved modulation and additional engine modes, including a vocoder. We covered much of this in a long term test review a year ago [FM384], in which we were impressed by the current state of the MicroFreak. Now it's received yet another major update – arguably its most significant yet.

The headline features of v5 are a quartet of sample synthesis modes. The first of these, simply named Sample, is the most straightforward. This turns the digital oscillator into a looping sample player – making use of one-shot samples, as opposed to the existing wavetable modes. As with other modes, the sound can be shaped using the Wave, Timbre and Shape dials, which here control sample start and end points and loop length, respectively.

The remaining are a trio of granular synthesis modes, differentiated by the way they read the sample's grains. These are named Scan Grains, Cloud Grains and Hit Grains. The first of these offers what could probably be called 'standard' granular synthesis. Here the Wave control adjusts the speed at which the oscillator scans through the sample, Timbre alters the density of waves generated and Shape applies randomness to the size, distribution and pitch of the grains. A soft volume envelope is applied to grain playback, resulting in a sound that stutters slightly without being too abrupt.

Cloud Grains, as its name implies, specialises in creating granular cloud effects, whereby the close proximity of grains creates a soft, ambient effect. Here the Wave control switches to adjusting the start position from which grains are collected, allowing users to home in on a particular tone or texture within a sample source. Finally, Hit Grains applies a more abrupt envelope to grain playback, resulting in a far more glitchy and stuttering take on granular playback.

MicroFreak can now house up to 128 samples with a total maximum length of 210 seconds, which can be managed – including the ability to upload user sounds – via Arturia's slick MIDI Control Center app. These new modes add to the flexibility of the MicroFreak considerably; although the wavetable modes already allowed for a certain amount of 'natural' textures alongside the digital synth tones, it's now incredibly fun to incorporate acoustic and found-sound sources amongst the rest of the synthesis tools. It also broadens MicroFreaks ability to work with percussive and non-tonal sounds, bolstered by another feature update – the addition of new, extra-snappy percussive envelope modes.

The firmware also lets the keyboard function as a modulation source, either in a linear fashion or randomised, resulting in sample-and-hold style modulation triggered by each key press. The update is rounded out by a generous selection of new presets. Given that this is the fifth significant iteration in under three years, all included free for a sub-£300 synth, it's undeniably impressive. FM

For a sub-£300 synth, it's undeniably impressive

FM VERDICT

9.5

MicroFreak v5 is another substantial and genuinely useful update to what was already a bargain synth

THE PROS & CONS

+

Granular synthesis modes are great for glitchy, IDM-style tones

Sample upload significantly broadens the sonic palette

Snappy envelopes are great for shaping percussive tones

–

Control over sample playback is slightly limited

ADDAC 107 Acid Source £199

Rob Redman takes on ADDAC's latest compact synth voice

CONTACT **WHO:** ADDAC **WEB:** addacsystem.com **KEY FEATURES** **I/O:** Complete synth voice, Includes multi mode filter, External gain control

Synth voices are easy to find and come in all shapes and sizes, but to find one that offers a complete palette, that is well built and comes in a suitable form factor can be much harder – even more so when looking for consistency and personality in one module. ADDAC aim to make this a simple choice with the release of the Acid Source.

As with all ADDAC modules, the hardware is solid, well built and clearly labelled. While a cursory glance may make it appear a little utilitarian compared to some of the wild graphics and glyphs seen elsewhere, the clean and clear approach makes navigating in a darker environment that much simpler.

For a module that has so much on offer, ADDAC has done a great job of keeping things compact, too. The Acid Source is just 9hp wide and 40mm deep, keeping it suitable for all manner of cases and skiffs.

The main task of the module is to generate tones, of which many can be coaxed, from simple square to more complex output, when combined with a saw tooth or triangle, each of which can be blended in with a pot. Controls for frequency and fine-tuning both live up top in this section. Passing on to a beautiful sounding filter, with low, band and high-pass modes and a resonance control. This filter sounds smooth but juicy, with lots of character and can be controlled by CV, as can pitch and the decay of the onboard VCA. Yes, this synth voice has a VCA built in, adding a certain amount of versatility, while freeing up other areas of a patch for other duties. That said the VCA only has a decay control, rather than a full envelope. However, that is part of the joy of this module, as it can be controlled by any external input. This encourages some experimentation, which can be quite the journey, as you look for ways to control the squelch of the filter. It's an uncommonly rewarding process, and one that ADDAC have implemented well.

Interestingly there is also an accent CV input. This is common on drum modules but rarely seen elsewhere, and enables the VCA to have triggered boosts, adding further levels of personality and musicality to a patch. Modules that have features like this can really add some movement and feel into your music, so thanks to ADDAC's developers for including it.

For some additional control there is also a gain control for external inputs, which allows for greater than standard voltages (up to 10v, rather than 5v), lending themselves to some lovely aggressive distortion.

All in all, this is a great sounding, compact synth voice. It lends itself to bass and lead tones with the possibility for some extra grit and growl you will find it hard to find elsewhere. **FM**

FM VERDICT

9.0

Typical ADDAC attention to detail makes this a fantastic option for anybody looking for a small, all-in-one voice that plays well with others

THE PROS & CONS

+

Versatile tonal options

Compact size for functionality

Excellent build quality

–

Limited VCA control

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The No.1 website for musicians

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You'll love musicradar.com

Thousands of gear reviews and killer video demos

Tips and techniques to help you create your own sound

musicradar.

YouTube

Audio-Technica ATH-M50xBT2 from £170

Bluetooth headphones are popular for many reasons. **Jon Musgrave** pairs with this updated design from Audio-Technica

CONTACT **WHO:** Audio-Technica **WEB:** audio-technica.com **KEY FEATURES** **DESIGN:** Closed back, over-ear **DRIVER:** 45mm **FREQUENCY RESPONSE:** 15Hz to 28kHz **SENSITIVITY:** 99dB/mW **BATTERY:** Approx 50 hours **FEATURES:** Built-in Alexa, Bluetooth fast pairing, microphone, low latency BT **ACCESSORIES:** Pouch, USB cable, audio cable **PRICING:** Black, **£170**; Blue **£200** **WEIGHT:** 311g

Audio-Technica's ATH-M50xBT is a Bluetooth model of its popular ATH-M50x wired headphones and is based on the same 45mm large aperture drivers that use rare earth magnets and copper-clad aluminium wire voice coils. The latest BT2 version of these headphones is now available in both black and blue editions. They are over the ear DJ style headphones with hinged and rotatable ear cups, and heavily padded ear cushions and headband. When you put them on they provide excellent isolation and in this respect are perfect for both recording, DJing and general use. When you want to pack them away the ear cups fold properly inwards so they're pretty compact, fitting nicely into the included pouch. Further included accessories are a jack cable and USB-C to USB-A cable.

The M50x BT2 works either via Bluetooth or wired (one cable is included), and wired mode is a pass through connection that bypasses the onboard electronics. In Bluetooth mode the headphones have an integrated comms, with dual mics used for calling and voice assistant features. The mics and a number of other performance features are refined and improved in the ATH-M50xBT2.

In Bluetooth mode, on-body controls include power/start/stop and volume, with a further dedicated voice assistant button (to access Alexa, Siri, and Google Assistant). This last button replaces the tap touch ear cup used on the previous version and should provide more predictable performance.

To access deeper settings you'll need the A-T Connect app (iOS and Android). This is well worth grabbing as it reveals a bunch of handy extras including two 5-band EQ options (graphic and parametric), L/R adjust, volume control step division, audio codec mode (Auto, AAC and SBC) and the low latency setting. I found this last option delivered excellent results and some of the best timing I've had from Bluetooth headphones. Other cool aspects include beamforming for the dual onboard microphones and multipoint pairing, which keeps you connected to two devices.

The app is well worth grabbing as it reveals a bunch of handy extras

From a sonic perspective the over-ear design delivers solid bass which can at times feel a bit too much. That said, I think the general balance is very good for this type of headphone and is considerably better than some of the excessively hyped designs available. If you're using them via Bluetooth you can of course adjust the EQ, adding your own presets to the handful of library ones. On the subject of Bluetooth, there isn't limitless onboard gain available, and I found it important to have a healthy source signal level.

In terms of comfort the over-ear design fits well and although the Bluetooth components add to the weight, at 311g they are not substantially heavier than the wired version (285g). Also positive is that the new version quotes a battery life of about 50 hours, which is a noteworthy improvement on version 1 (40 hours).

Overall I like the ATH-M50xBT2. The new model finesses rather than reinvents its predecessor, and continues to offer good value and excellent performance. **FM**

FM VERDICT

8.7

Audio-Technica's update delivers better overall performance and more features while retaining the core sound and fit

THE PROS & CONS

+

Extensive onboard tweaking via app

Improved battery life

Good passive noise cancellation

Low latency Bluetooth mode

Comfortable over-ear fit

–

Sound editing is only available in Bluetooth mode

Luftrum – Gemina for Omnisphere $79

We've taken a look at, and enjoyed, a few Lutrum products in these pages over the last year, so it was with great enthusiasm that I took delivery of Gemina for Omnisphere 2, a pack of 400 patches taking a post-apocalyptic and dystopian worldview as their starting point – doesn't that sound like fun?

Once installation is complete, Gemina has its own folder in the User Directories browser menu, with relevant search tags and information for each patch on its broader sonics and relevant modulation information. It's on the latter point where it's clear that plenty of thought has gone into how usable these sounds should be, with excellent use of modulation wheel, velocity and aftertouch. Another example of attention to detail is how the patches are all well-balanced in terms of level – making patch auditioning and comparison an easy single-click process.

It would be impossible to do justice to all 400 of the sound patches here, but you'll find pads, basses, sweeps, soundscapes, guitars, hits and effects (amongst others). Distortion, delay, reverb and other effects are integrated into each sound very effectively and means that each one is ready to use, requiring little further processing. It's worth being patient when auditioning sounds though, as some are tempo-synced or evolve slowly to reveal very complex modulation and layering.

While $79 might seem quite a lot of money to shell out for a bunch of patches, it is fair to say that this isn't just any pack of sounds. With more than 400 to choose from, and with an interesting range of flavours, you get plenty of bang for your buck. It's also important to note that, although aimed at the bleaker end of the mood spectrum, these patches could find use across a whole bunch of styles. In fact, as a tool for inspiration alone I found myself hooked pretty quickly. Excellent stuff!

Bruce Aisher

luftrum.com

VERDICT 9.2

Luftrum – Dub Diva for u-he Diva $35

Next in our Luftrum double-bill is another set of patches, but this time 137 of them dedicated to exploring the world of Dub Techno in u-he's Diva soft-synth.

For those yet to try it, Diva is regarded as one the finest-sounding software synths for analogue emulation, and Luftrum's design makes full use of the underlying tech.

Installation is a drag-and-drop affair, and you get a dedicated bank of easily accessible Diva patches.

This pack is NKS-compatible and features the usual well-considered real-time control features of other Luftrum offerings. While this soundset doesn't perhaps offer the impressive immediacy of Gemina (above) that's perhaps to be expected given the minimal nature of the genre to which they're aimed.

Once you focus on this, it's clear that their often subtle nature is great for this strata of electronic music.

Bruce Aisher

luftrum.com

VERDICT 8.7

Audiotent – Cyborg from £25

50+ custom-made presets that delve deep into the very guts of Arturia's Korg MS-20 V. And come out blazing with a beefy batch of bass sounds and lairy leads.

The sound design is impeccable. With all of the patches, oscillators, filters and such, finessed and fingered with the right mix of studious skill and gay abandon. Serving up a heavyweight library, mixing in hella hypnotic sequences and icy pads, alongside the epic low-end power that got you through the door.

The Standard Edition (£25) hits you with the punchy presets. And for an extra ten spot you can plump for the Deluxe edition (£35), if you fancy fooling with a bonus bevy of matching melodic MIDI files and WAV loops. Robot rock!

Roy Spencer

audiotent.com

VERDICT 9.0

Sample Magic – Leftfield Bass 2 From $7.99/month

If filthy-ass bass is your thing, then look under your fingernails after pawing through this grubby lot: there's dirty sound design for days with squelchy synths and sinister subs. Sounds run from sick to deranged. With the bigger bass tones growling it up and rattling speakers.

To flesh out your low-end frequency fun, there's haunting music kits, moody textures, and half-time beats and their drum hits to offend the senses and anchor the sounds. There are also nasty plucks, stabs, and pads for Serum users to flip over, rounding out a devilish selection of big-bottom bass biz.

With 370 twisted samples and 20 presets to play with, you'll be knocking out tough-as-guts music for weeks to come. Now, wash your hands.

Roy Spencer

splice.com

VERDICT 7.0

Splice Originals – Afrojuice From $7.99/month

276 samples from the studio of super dude, Iss 814. This Senegalese beat-maker loves turning out punchy, polished productions. Mixing forward-thinking club beats with inspirations drawn from his west African roots and musical heritage.

Here, he fuses wild traditional rhythms with crisp digital electronica, bringing melodies, basslines, riffs, guitars, toplines, and other song-starting grooves to work with. Percussion and shakers keeping proceedings loose and lively.

There's enough pop sensibility to keep things radio friendly, with enough fire in the funk to keep it credible. And with influences like Nigerian pop superstar, Fireboy, and modern Afrobeats hero WhizKid brought to the fore, this extensive selection of sounds will light up the spot.

Roy Spencer

splice.com

VERDICT 7.0

House Of Loop – Afro House Essence Vol. 2 £16.95

Popping pack of luscious live melodies, deep and driving basslines, and infectious percussive rhythms. With splashy brass hooks and sunshine pad work bringing extra heat. The hits come strong, too with tough claps, kicks, hats and other large one-shots on hand to help you furnish your drum library for the summer.

All the sounds in this 382MB set rock real nice. With plenty of other fun files in the bonus MIDI and FX folders, helping keep the variety levels topped up.

Throw in a fat stack of super cool-sounding patches for samplers like Battery and Kontakt, and you've got yourselves a party. Perfect, then, for flavouring straight up Afro house bangers. Or, any flavourless 4/4 grooves that need a pinch of serious spice.

Roy Spencer

loopmasters.com

VERDICT 8.0

Loopmasters – Nhii - Melodic Modular Elements £24.95

Quality artist-led house pack from the man behind the moniker Nhii [No human is illegal], in which the Sounds of Khemit label don showcases the exact strain of rich rhythm and deep synthesis that feeds his soul and fires up his all-encompassing dancefloors.

His 593MB collection takes in sublime digital instrumentation, a full palette of key tones and textures, and some real pulse-quickening stabs and arpeggios for upping your track's energy levels.

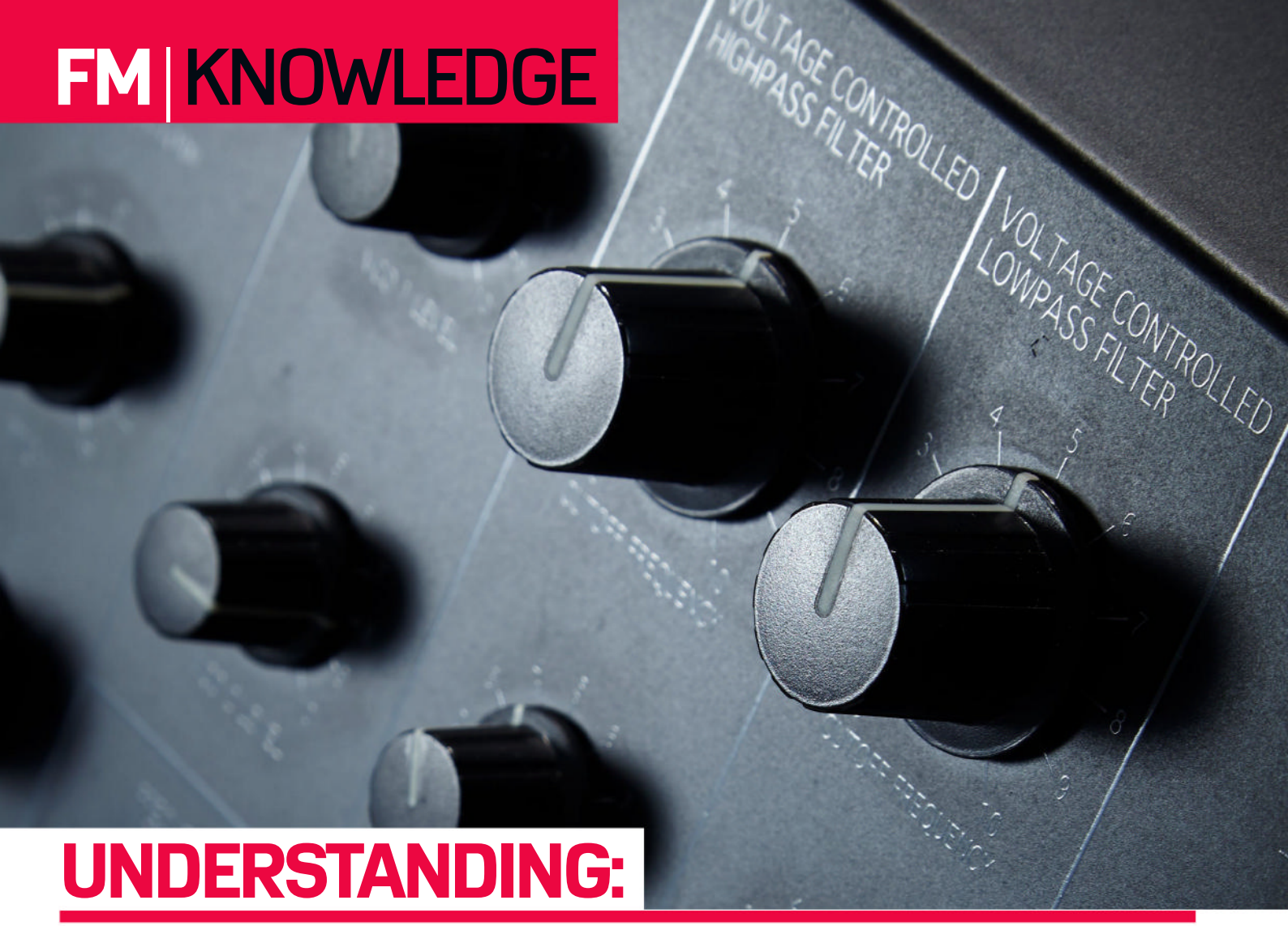
The drum workouts are highly considered and finely tuned, too, playing well with the unique tops and exotic percussion loops bundled in.

This versatile and often surprising collection is also fully compatible with Loopcloud, if that's high on your priorities list. All-in, well worth the entry fee.

Roy Spencer

loopmasters.com

VERDICT 8.0



UNDERSTANDING:

Filters

WHAT IS A FILTER?

An audio filter is a processing device which allows some frequencies through untouched, but attenuates (reduces the volume of) other frequencies. Analogue era filters were created using various combinations of discrete components, integrated circuits and subtle variations in sound. Similar effects can now be achieved in the digital domain

The three most common filter types are known as low-pass, high-pass and band-pass. Low-pass (aka LP or high-cut) filters allow frequencies below an adjustable cutoff point through untouched. Frequencies above the cutoff point are attenuated, with the level of this increasing further up the frequency range. A low-pass filter is typically seen as the minimum requirement for a subtractive synth's filter section. The ability to filter higher frequencies means that the higher harmonics of a waveform can be removed while leaving the fundamental frequency untouched. As such, a harmonically rich signal can be filtered back down to countless less rich waves.

High-pass (HP, low-cut) filters operate in a very similar way to their low-pass counterparts but allow frequencies above the cutoff frequency to pass while attenuating everything below it.

A band-pass filter allows only a specified chunk of the frequency range through, cutting off the frequencies above and below that band. A similar effect can be achieved by passing a signal through a HP and LP filter in series with the high-pass cutoff frequency set lower than the low-pass cutoff frequency.

The less common band-reject filter is the opposite to a band-pass, blocking a section of the frequency range but allowing higher and lower frequencies to pass. The term notch-reject is also used to refer to a specific type of band-reject filter which only cuts a very narrow band of frequencies, typically used for dialling out problematic feedback frequencies in live PA setups but also usable as an effect in some cases.

Comb filters are less common but worth a quick mention. Typically created using delayed signals rather than filter circuits, comb filters act like a series of band-pass filters, forming peaks and troughs in the frequency response.

Know your filter terms:

LP, LOW-PASS, HIGH-CUT

Filters above the cutoff frequency.

HP, HIGH-PASS, LOW-CUT

Filters sound below the cutoff.

BP, BAND-PASS

Filters a specific frequency band.

BAND-REJECT, NOTCH-REJECT

Allows everything but a set frequency.

CUTOFF FREQUENCY

The frequency at which a filter begins to attenuate the signal.

RESONANCE, PEAK, Q

Controls a feedback loop, introducing a peak at the cutoff frequency.

SELF-OSCILLATION

An effect where some filters create a sine tone at high resonance settings.

SLOPE

The rate at which a filter attenuates beyond the cutoff frequency, usually expressed as 2-pole or 12dB/Oct etc.

MULTIMODE FILTER

A single filter unit offering multiple filter modes.

FORMANT FILTER

An effect which uses multiple resonant bandpass filters to manipulate formants, creating a voice-like sound.

Quick effects tips: Part 4

Get more out of your synths with our series of quick-and-dirty synthesis tips

MODULATED DELAYS

Keeping your delay effects moving, even subtly, will help keep your listeners hooked. Use LFOs or automation to vary delay parameters throughout your tracks. Whether you want to push and pull feedback levels, pitch offsets or any other parameter, keeping your delay sounds evolving keeps them lively in your listeners' ears.

OLD-SCHOOL EQ

An absence of treble frequencies is synonymous with analogue signals; darken overly digital or brittle sounds with low-pass filter or high-shelf EQ cut.

GO EASY ON THE MODULATION EFFECTS

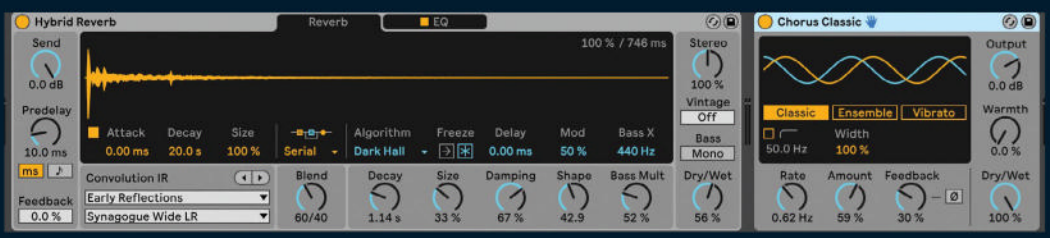
Unlike delay and reverb, modulation effects – such as chorus, phasers and flangers – sound especially unnatural to our ears. For this reason, always exercise restraint and be subtle with your application. To temper their effect in the mix and prevent overuse, automate mix amount or level to emphasise only certain song sections.

DIY RESONATORS

In hardware world, you can create resonators by using a flanger with a modulation depth of zero. In the modular world, you can apply a CV to control delay time (inverted) and use a step sequencer or keyboard to compose melodies.

CHORUS UP YOUR REVERB

Reverb sounding too 'flat' or 'static'? Apply a subtle blend of chorus on your reverb aux to dial in a touch of density. Try placing the chorus pre-reverb to thicken the input signal feeding into the 'verb, or stick it at the end of the chain to wash out the reverb tone.



WANT MORE TIPS?

Come back for more next issue, and revisit our playlist of 20 video synth tips – in a handy phone-friendly format – at: **bit.ly/quicksynthtips**

DAWs

Bitwig Studio 5 from €79

Full Review: FM399

At v5, Bitwig Studio is hugely creative, experimental and deep. That won't suit all users, but within its niche, it's unrivalled.

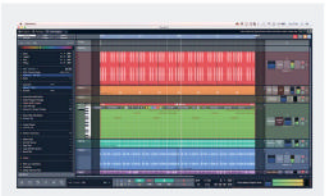
Ableton Live 11 Suite £539

Full Review: FM368 (v11.0)

With the new 11.3 update, Live gains a brilliantly, user-friendly new synth, Drift, and a host of new expressive capabilities.

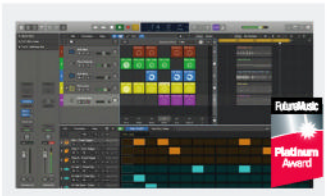
Steinberg Cubase 12 £497

Review: FM382 Version 12 is a solid and dependable update to Cubase, and offers some excellent new features and small, but important, updates to others.



Tracktion Waveform Pro from $119

Review: FM345 Waveform is now friendlier, contains more creative tools and brings workflow ideas you'll have missed from other DAWs.

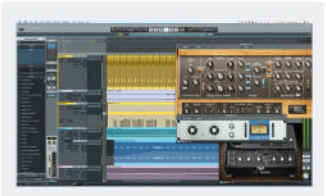


Apple Logic Pro $199

Review: FM361 Still no Logic 11, but seeing as Pro has had so many updates (it's recently dropped the 'X' too), it's hard to complain. In the latest, spatial audio tools join the party.

Reason Studios Reason 12 £499

Review: FM375 It's debatable whether the upgrade is worth it for existing Reason 11 users, but taken as a whole, Reason is looking the best it has in years.



Universal Audio LUNA free

UA might not want to call LUNA a DAW, but let's be honest... Even in its version one form, this is a slick and stylish recording environment and a great freebie for Apollo users.

PreSonus Studio One Pro £345

Recently updated to version 6, Studio One now has a lot to offer those working with traditional notation and scoring for screen.

Image-Line FL Studio €89

Review: FM334 Over 20 years since it first appeared, Image-Line's FL Studio is a powerful and inspirational application – and it's a welcome addition to the Mac realm too!

Avid Pro Tools from £25 p/m

Pro Tools has now caught up with other DAWs, bringing in a fast workflow to match its power. It still only runs AAX plugins, and there are alternative subscription payment models.

COMPACT MONITORS

IK Multimedia iLoud Micro £250

IK's Micro monitors are compact and portable but offer surprisingly powerful and high-quality sound. Room correction EQ is handy for on-the-go use too.

KRK GoAux 3 and 4 from £280

Full Review: FM394 KRK's GoAux monitors offer a great solution for those on the move or simply short of space. Not the cheapest, but they offer reasonable value and flexible features.

Genelec 8010A £270 (each)

Genelec's distinctive compact monitors are a modern classic for small spaces. Not cheap, but there's a lot here that make these far more 'pro' sounding than their size suggests…

JBL One Series 104-BT £150

Review: FM346 The One Series 104 is a stylish compact monitor that delivers decent sonics, flexible connectivity and solid build, all at a very attractive price.

Focal Solo6 ST6 £1,149 (each)

Review: FM396 For their size, these are sublime, top-drawer little monitors that will be an asset to any small studio (or used as satellite monitors in more ambitious installs).

DJ HEADPHONES

Sennheiser HD 25 £120

A classic set of headphones, universally well-loved by DJs for their price, reliable sounds and reliable design…

Audio-Technica ATH-M50xBT2 from £170

This Bluetooth update to Audio-Technica's versatile headphones have features that make them useful for DJs and home-listeners alike.

Pioneer DJ HDJ Cue1 £60

These are budget DJ headphones that neither look nor sound cheap. The sound isn't quite up there with high-end cans, but these are solid with plenty of DJ-friendly features included.

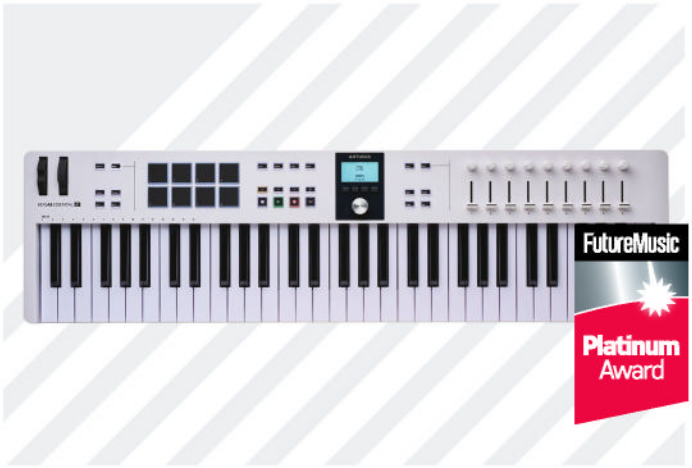
Pioneer DJ HDJ-X10 £299

These closed-back cans are more expensive than some other DJ headphones, but you get what you pay for with a wide frequency response, powerful sound and robust build.

AIAIAI TMA-2 DJ £160

AIAIAI's modular approach to headphone design offers masses of flexibility. This 'preset' design is a well-rounded and well-priced setup for DJs.

MIDI KEYBOARDS



Arturia Keylab Essential Mk3 €199

Full Review: FM399

Better and slicker than its predecessor, Keylab Essential 3 delivers great control features, quality design and good DAW integration.

Novation FLkey €99

Full Review: FM383 (37 and Mini)

Novation's FLkey range has provided FL Studio users with the pro-level controller range they've always deserved but long been denied. The range has now been expanded with new 49 and 61-key models for added playability.

Akai MPK mini mk3 £90

Review FM363 A very decent upgrade with genuinely pro features, fixing its position in the top rung of mini keyboard controllers available.

NI Komplete Kontrol A-Series | from £119

Review FM338 A quality controller combined with a well-rounded software bundle.

Donner DMK-25 Pro £125

Review: FM395 The DMK-25 Pro stuffs loads into a lightweight, compact, and visually appealing package. Ideal for on-the-go use.

Novation Launchkey Mini Mk3 £110

Review: FM349 Small but well spec'd, this is a convenient and well-made controller that's great with or without Ableton Live.

Novation SL MkIII £540

Review: FM338 Well-designed and versatile. For those who work with both hardware and software, this may be the best studio centrepiece that's on the market.

Arturia MiniLab 3 £90

Review: FM392 A great value keyboard with an updated feature set that makes this one of the best mini controllers around.

Novation Launchkey 88 Mk3 £200

Review: FM386 Launchkey 88 is a great standalone controller but is best coupled with one of the script-supported DAWs.

Arturia KeyStep Pro £339

Review: FM359 For melodic sequencing duties and flexible hardware control, this is one of the best keyboard devices around.

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